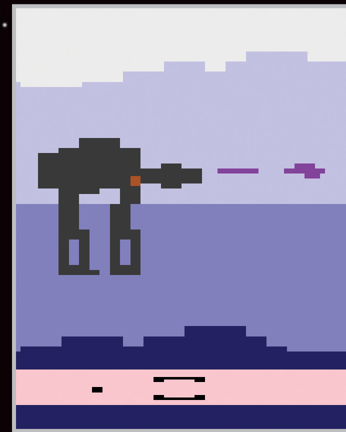
THE ESSENTIAL GUIDE TO CLASSIC GAMES

retro* GAMER™

AMSTRAD | COMMODORE | SEGA | NINTENDO | ATARI | SINCLAIR | NEO-GEO | SONY | COIN-OP | MOBILE

CREATING AN EMPIRE

DISCOVER HOW PARKER BROTHERS MADE THE FIRST OFFICIAL STAR WARS GAME



30 YEARS OF ENTERTAINMENT

The story behind Nintendo's world-conquering console



MASAYUKI UEMURA INSIDE

THE NES CREATOR TELLS ALL



FATAL FURY

REVISITING THE 25-YEAR-OLD FIGHTING SERIES

ALSO INSIDE

- ED FRIES
- SCRAMBLE
- BURGERTIME
- COMMODORE 64
- THE GODFATHER
- GHOULS 'N GHOSTS
- MASTER SYSTEM CONVERTER
- FIVE AMAZING ANT ATTACK MOMENTS

INSIDE THIS CELEBRATORY ISSUE

THE SECRETS OF SPEEDRUNNING
MEET THE RECORD-SMASHERS THAT BREAK CLASSIC VIDEOGAMES

THE COMPLETE HISTORY OF SEGA
TRIP HAWKINS AND OTHERS ON THE RISE AND FALL OF THE JAPANESE PUBLISHER

THE MAKING OF MASTER OF ORION
THE ORIGINS OF THE STRATEGY HIT AND WHY IT'S BEING REMADE

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THE RETROBATES BEST NES GAME



DARRAN JONES

Mike Tyson's Punch Out!!. An excellent NES game that's full of character and features fantastic animation. I used to waste ages playing this in my local Boots.

Expertise:
Juggling a gorgeous wife, two beautiful girls and an award-winning magazine

Currently playing:
Castlevania: The Dracula X Chronicles

Favourite game of all time:
Strider



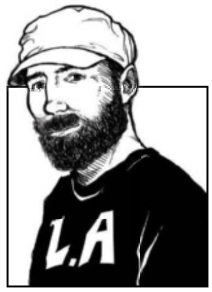
NICK THORPE

I don't know how many hours I spent on *Dr. Mario* as a kid, but that music lodged itself in my head pretty firmly.

Expertise:
Owning five Master Systems (I sold two)

Currently playing:
The King Of Fighters '98

Favourite game of all time:
Sonic The Hedgehog



LUKE ALBIGÉS

It has to be *Excitebike* for me. I'd rather play *Super Mario World*, *Super Metroid* or *A Link To The Past* than the original NES games, but there's only one place I'll go for a quick solo racing fix.

Expertise:
Unstoppable *Bomberman* player and real-life Guitar Hero

Currently playing:
Uncharted 4: A Thief's End

Favourite game of all time:
Micro Machines 2: Turbo Tournament



DREW SLEEP

I was going to say *Metroid*, but I think that *Castlevania* has aged better. Pretty much anyone can pick it up and enjoy sticking it to Dracula.

Expertise:
Lobbying for a Retrobate illustration

Currently playing:
Persona 3: FES

Favourite game of all time:
Rocket Knight Adventures



SAM RIBBITS

Bubble Bobble was the first arcade game I ever played, so the NES port holds a lot of nostalgia for me.

Expertise:
Pixels

Currently playing:
Fez

Favourite game of all time:
Pokémon Yellow



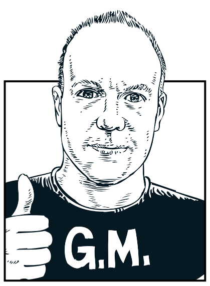
PAUL DRURY

An obvious choice, *Super Mario Bros. 3*. So much to discover, so much to enjoy... Hey, can you play it with a Power Glove?

Expertise:
President Yamauchi's muffler

Currently playing:
Ankh

Favourite game of all time:
Sheep In Space



GRAEME MASON

I've always loved the *Excitebike* series, and the original was a superbly balanced game, with a great course designer to boot.

Expertise:
Adjusting the tape azimuth with a screwdriver

Currently playing:
Rise Of The Tomb Raider

Favourite game of all time:
Resident Evil 4



DAVID CROOKES

For me, *Super Mario Bros. 3*, which took the platformer to new heights. Who wouldn't like those special upgrades?

Expertise:
Amstrad, Lynx, adventures, Dizzy, and PlayStation (but is it retro? Debate!)

Currently playing:
Grim Fandango Remastered

Favourite game of all time:
Broken Sword



JASON KELK

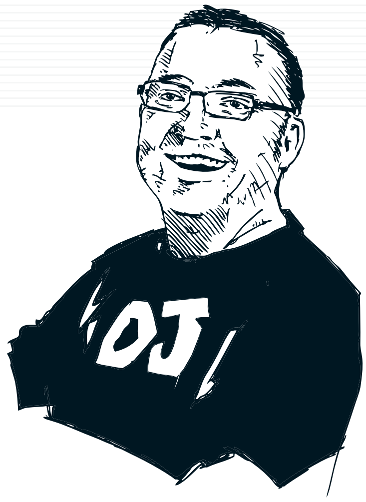
Gradius 2 every time, it's just a lovely piece of NES shooting action.

Expertise:
Being a homebrew hero

Currently playing:
Space Tripper

Favourite game of all time:
Io

LOADING...



I was envious of the NES growing up. It might not have had the success in the UK that it achieved in the rest of the world, but its influence loomed over my childhood.

I would regularly play the console that was set up in the Boots at Boscombe, alternating between *Duck Hunt* and *Super Mario Bros.*. I'd play on that NES for as long as possible, but it was never enough time, as there was always someone else wanting to play on it.

The graphics were astonishing, while the smooth scrolling, character designs and gameplay reminded me of the arcade games I loved playing. The NES made my Amstrad feel obsolete, and I loved my Amstrad, but it's high price point and cost of the games meant it was never more than a pipe dream.

When I could afford to buy my first 8-bit console, I sided with the Master System, mainly due to it having many of the Sega arcade games that I used to love playing. I never forgot the NES, though, or how it hinted at the larger world of gaming that I was slowly becoming aware of. It's with great pleasure, then, that we've been able to interview the very man whose creation left such a big impression on me growing up. Regardless of how you feel about the so called 'revisionist history' that surrounds Nintendo's 8-bit console, you will hopefully find this story as fascinating as I did.

Enjoy the magazine!



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>> Load 155 Breathing new life into classic games

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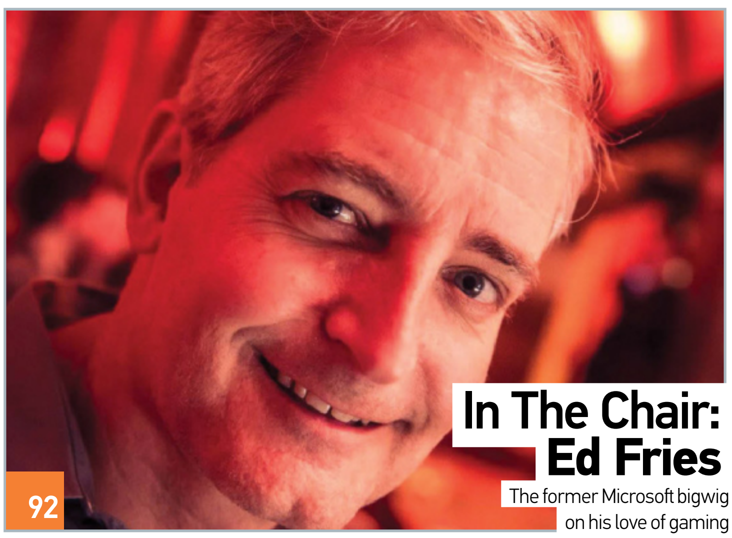






> "Rocket Ball is great fun when playing against the computer"





REVIEWS



ESSENTIALS





RARE NEO-GEO PROTOTYPE DISCOVERED

✱ CONTENTS

Brian Hargrove explains how he found a long-forgotten fighting game

It's not every day that we get to see a game that doesn't exist in action, so we were delighted when Brian Hargrove (aka NeoTurfMasta on the Neo-Geo forums) lucked upon a prototype Neo-Geo board for an unreleased fighting game and decided to share this treat with the world. We caught up with him to discuss where it came from, what exactly it might be and how he got it working.

How did you find the development board with this prototype?
I have been searching Yahoo Auctions Japan regularly for the past 14 years now, and I'm always searching when I have free time. This particular auction wasn't listed in the main Neo-Geo category, but it did come up under a blanket Neo-Geo search. That was a little worrying because I knew other people probably had come across it. I used Buyee to bid on this auction (since my good friend no longer lives in Japan) and I put in a very large bid hoping I would get it. I woke up the next morning to see that I had won. $600 is a lot of money, but I was willing to take a chance. If it was junk, I would still be happy having another Neo-Geo development board.

This wasn't the first Neo-Geo dev board I have won on Yahoo Auctions. I have a very similar board, but it contains the final code of an already-released game. Yahoo Auctions have been a dumping ground for strange SNK equipment over the years.



» [Neo-Geo] Not all of the characters are completely finished and many are missing animation frames.



» [Neo-Geo] Certain selections cause significant errors as the game searches for code that was never written.

Was there any indication in the auction that the memory cards contained an unreleased game?
There was no indication at all. It was, however, the first time I have come across a dev board that included the SRAM and Flash cards. I had hoped it was something new, but I wasn't holding my breath.

Previous prototypes I have bought have always been EPROM MVS or Home Cart boards. Several years ago I came across some very early and unfinished versions of *Burning Fight* and *Alpha Mission II* on home cart, those too have been dumped and are in MAME.



» [Neo-Geo] There are hints at what could have been a really interesting fighter here.

» [Neo-Geo] Most backgrounds are finished and some of them look stunning.



» [Neo-Geo] Dual characters are always interesting and this playful pair is no exception.

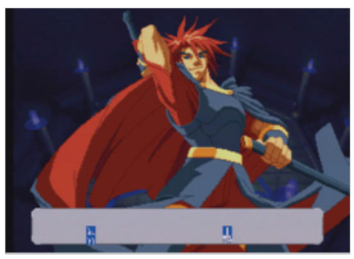
> "This game wasn't on anyone's radar and you're kind of just sitting there trying to process what you're seeing"
> Brian Hargrove

What did you have to do to get the game into a playable state?
It took a lot of research on my part to figure this out. I learned about how Linear Flash cards work and how to copy data to and from them. It requires special equipment and software, you can't just throw these PCMCIA cards into an old Laptop and see if Windows can read it. I think the 'ah-ha' moment was when I realised that the flash cards were numbered wrong. Once I loaded a new fix layer (this contains the fonts, that kind of stuff) on a spare SRAM card, and put the flash cards into their proper spots it came right up.

What was the response like when you revealed the game at Midwest Gaming Classic?
The response was overwhelmingly positive. I really think the people there weren't expecting to see what they did. Before I started, I heard several people guessing it was going to be one of the known prototypes that we have pictures of. Their response mirrored mine when I first saw it. Seeing all the incredible artwork and backgrounds was a huge surprise at first. This game wasn't on anyone's radar and you're kind of just sitting there trying to process what you're seeing. At the end of the presentation people seemed pretty pumped about it, but I think there was a bit of disappointment that something this far along was cancelled. The game could have been pretty great, if it were released.

Without a name or developer to go on, finding out more information must have been tough – how have you found new leads?
Social media was a huge help. Within a few days we seemed to find a good bit of information from people who worked on the game. Several ex-FACE artists (the maker of *Money Idol Exchanger* for NG) started posting their stories on Twitter. After Technos closed down, several staff members who worked on *Voltage Fighter Gowkaizer* went over to FACE and started working on this game. This would explain why the dev board had VFG information in the Program ROMs. One of the artists thinks it was called *Dragon's Heaven*, but cant be 100 per cent sure. Someone posted a scan from the April 1997 issue of *Neo-Geo Freak* showing an interview with Kengo Asai (FACE and *Gowcaizer* Director) where he hinted about a new fighting game.

I really hope this encourages others to release what they have. There are collectors out there who have unreleased Neo-Geo prototypes and for whatever reason think its okay to deprive the world of these gems. I never saw this game as belonging to me, it really should be everyone's to enjoy. Life is short; these kinds of things make people happy, why not do that if you have the opportunity.*



» [Neo-Geo] The character art is clearly finished and we're big fans of the style used.

WHAT WE KNOW

The facts and details we can glean from this prototype

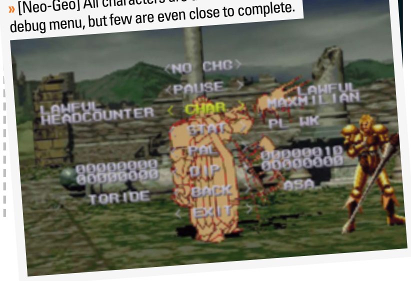
IT'S NAMELESS
■ The game, in its prototype state, doesn't have a title screen – instead, it launches straight into a debug menu, from which you can reach the character select screen. While this means we don't know for sure, an outsourced artist on the project suggests it could be called *Dragon's Heaven*, but we may never truly know.

FACE WAS THE DEVELOPER
■ Eagle-eyed posters on the Neo-Geo forums quickly pointed out similarities between typefaces and icons seen in this prototype's palettes and those found in FACE's *Money Idol Exchanger*. Responses on social media from people who apparently worked on the game in some capacity also confirm FACE's involvement.

D&D INFLUENCES
■ Each character looks to have Chaotic, Neutral and Lawful variants, seemingly an evolution of *Samurai Shodown III*'s Bust/Slash mechanic – palettes change, as do move sets but it's hard to accurately gauge how different each version is without a HUD for monitoring damage and system changes between them.

IT WAS STILL VERY EARLY
■ Only a few of the characters have anything close to finished sprites for even their idle animations – they're all missing loads of frames for moves, some are straight-up placeholder and others are slightly evolved dummies that look nothing like their victory pose designs. Which, interestingly, seem a lot further along than the sprites.

THE PEDIGREE WAS STRONG
■ Comments from former FACE employees suggest that Kengo Asai – credited on the *Samurai Shodown* games – was producer on the project. Given that he later went on to be involved in *The Last Blade*, it could be that elements of this cancelled game were used to shape the popular weapon-based fighter.



» [Neo-Geo] All characters are available via the debug menu, but few are even close to complete.



Here's my bio... Paul Davies
In 1992 I started out on *Mean Machines Sega* and *Nintendo Magazine System*. In 1995 I became editor of *C&VG*. I led the *C&VG* website from 1998 until Christmas 2000, then I left journalism to be concept design manager at Criterion Games. I returned to journalism in 2002 and from 2005 I've been running my own company, Unlikely Hero.

CONSOLES GROWING OLDER YOUNGER

Wait, what? There's a new PlayStation and Xbox already!? At the time of writing all signs point to this thing happening. 15 years from now we'll know what there really is to say about it.

I find it hard to muster excitement for something new so soon. Then again, the most excited I've ever been about consoles was the PC Engine and Mega Drive back in 1989. They were complete mysteries to me before I saw what they could do; fuzzy photos in computing magazines printed on poor quality paper. How vivid *Galaga 88* looked on PC Engine. How awesome was *Super Shinobi* on a CRT.

Of course back then gaming, or rather console gaming, was nowhere near as widespread as it is now. We were on the brink of *Sonic The Hedgehog* and the global roll out of Mega Drive/Genesis. There were no self-appointed experts discussing the pros and cons of hardware iterations. New 'mean machines' were always welcome. Things have stabilised since then after harsh lessons learned. Millions of people know what a PlayStation and an Xbox is, and the playground console wars are (sadly) as good as over. Our friends' preference keeps us closer to one or the other.

From what I know at this stage, 'PS4K' (or PlayStation Neo) and 'Xbox 1.5' are bringing modest hardware revisions to improve slightly upon the basic PS4 and Xbox One consoles. And it seems that this is mainly to allow for both consoles to serve content in 4K to continue their usefulness as all-in-one media boxes. The juicy information, though, is that both hardware revisions could boost game performance too.

Now this is crossing over into PC territory, but it's not the same. Buying a console that bears a Sony or Microsoft badge is easy and feels safe. But while I can see what Microsoft is attempting with Xbox as a gaming platform, will it go the whole hog? That is, to allow other hardware manufacturers to create their own Xbox consoles in the same way that Android is common across Sony, HTC and Samsung devices. Meanwhile PlayStation hardware seems to be restricted to Sony-manufactured goods along the lines of the iPhone/iPad although with an iTunes equivalent – PlayStation Now – available as a service on everything from smartphones to TVs and PCs.

What will we think in hindsight, when this has become retro? Part of the appeal of retro for me, and I'm sure plenty of **Retro Gamer** readers, is that mistakes can be charming or inspiring. Dreamcast was ahead of its time, it's just that Sega didn't have the means to support it.

One thing I'm sure of is that neither Sony nor Microsoft are taking risks, they're just too well-informed and market aware compared to Sega and Nintendo two decades ago – the equivalent of looking back to the Sixties and expecting Nintendo/Sega to be facing similar decisions with NES/Master System.

What's weird, though, is that gaming generations are now arriving faster and more efficiently, and we're not measuring them in terms of decades any more, just a handful of years, that in child terms we might even measure in months. With everything moving to digital, what's going to be collectible at all any longer? Me, I love my wedge-shaped old-school PS4 and ridiculously ugly VHS Xbox One! *



What do you think?

Do you agree with Paul's thoughts? Contact us at:

RetroGamerUK | @RetroGamer_Mag | retrogamer@imagine-publishing.co.uk | www.retrogamer.net/forum









Exposing the business

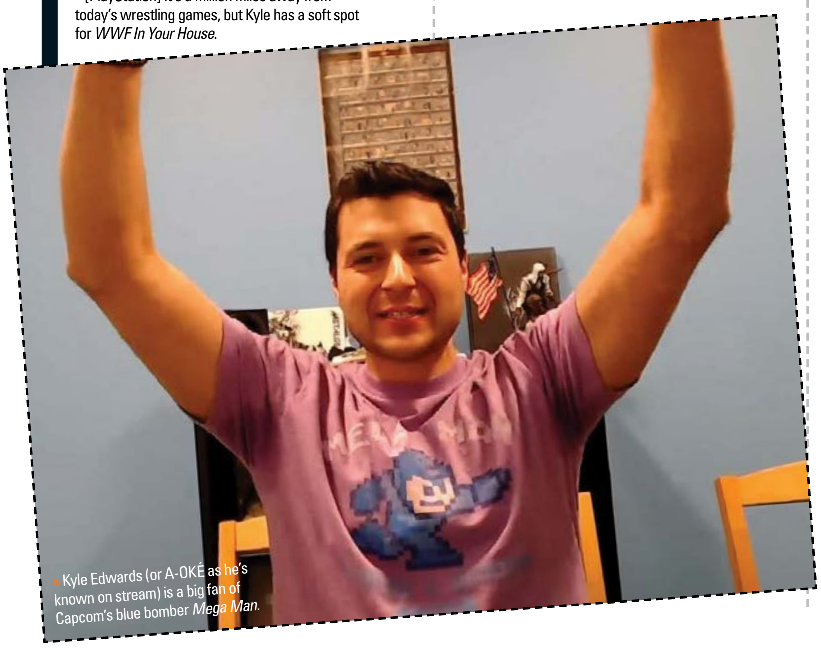
When Kyle Edwards isn't hosting shows like WWE Experience, he's streaming retro games

Most people know WWE primarily for its wrestling shows, so a WWE YouTube gaming channel is a bit of a departure from that. How did it come about?
The channel's clearly a new venture in terms of what WWE would put out, but it's got its own YouTube channel and social media, so it's almost concurrent. Austin Creed, Xavier Woods in WWE, is the face of the channel and the main host, and that's how it started – Austin Creed just doing videos. Behind the scenes they brought in a guy known as El Murpho – Mike Murphy, he's one of the main characters on camera, and one of the main characters behind the scenes as well – to be one of the main producers behind the channel.

How did you become involved with the channel as the host of *The Retro Stream*?
I was watching the videos on a weekly basis, and I just thought that there was perhaps a need for more of the vintage stuff. Austin was playing some vintage games every now and then with his friends, and I knew that they were starting to get into livestreaming this stuff– that's something that El Murpho was starting to do, particularly with *WWE 2K16* – and I said, 'What if we did something retro?' Because that's where my love for videogames truly lies. Right now we do them every Thursday at 13:00 Eastern time, we started with *Mega Man Legacy Collection* and we pick a different game every week.



» [PlayStation] It's a million miles away from today's wrestling games, but Kyle has a soft spot for *WWF In Your House*.



» Kyle Edwards (or A-OKÉ as he's known on stream) is a big fan of Capcom's blue bomber *Mega Man*.

Tell us a little bit about your personal gaming history – what did you grow up with and what are your favourite games?
I'm a product of the Eighties, I had a NES when I was a kid. The first game I played on was *Super Mario Bros.* – that was the first game that got me hooked onto videogames. I beat it two years later, it took me a long time to beat *Super Mario Bros.*. From there I was a Nintendo fiend, I traded games with my friends, tried to make as many friends as I could so I could go to their houses and play their games, and that's how I learned about the different games that existed. I'm still very loyal to the *Mario* series, I make a point to keep up with the series today.

Are there any secret retro gaming fanatics on the WWE roster? We know about Xavier Woods, and we often see Asuka posting cool games like *Thunder Force V* on Twitter…
Yeah, Xavier Woods is definitely a big retro game person. Kofi Kingston is a big *Street Fighter* fan, especially *Street Fighter IV*. You know who else is a big retro gamer? AJ Styles. He and I did a segment together on *WWE Experience*, and before we started filming he was like, 'Hey, I know you're a retro game fan – what's the other game that uses the Konami code to get 30 lives?' I knew it was either *Gradius* or *Life Force*. So I said, 'I think it's *Gradius*,' and he was like, 'No, *Gradius* uses the Konami code but it's for a power-up – it's actually *Life Force*!' I was like, 'Wow, I am *super* impressed with your knowledge of retro games right now, this is awesome.'

A lot of my producers in the international department are huge fans of retro videogames, too – actually there's a guy who's just joined our creative team, an independent wrestler by the name of Jimmy Jacobs, and he's huge into *Contra*, just like me. When he moved to Stamford, we decided to beat every *Contra*, that was going to be our mission – and after every game, we'd take a picture with the ending. Right now we're up to about five or six.



» Globetrotting superstar and recent WWE signee AJ Styles happens to be a big retro gamer.

> "You know who else is a big retro gamer? AJ Styles. He and I did a segment together on WWE Experience"
> Kyle Edwards



» [NES] If you go one-on-one with Kyle Edwards for the title, maybe avoid *Blades Of Steel*…

Hypothetical question: you're the WWE Retro Gaming Champion, and you've got to defend your title belt in a game of your choice. Which game would you pick?
A game of my choice… *Street Fighter II*, probably *Hyper Fighting* – not *Super Street Fighter II*. I might go with *Wrestlefest*, I was a big fan of that one, I think I could defend my championship. Or *Blades Of Steel*! *Blades Of Steel* for sure, yes. At the risk of sounding egotistical, I would rank myself fairly high in the world *Blades Of Steel* rankings – or at least in North America.*

the vault

THE COOL RETRO STUFF THAT WE'VE HAD OUR EYE ON THIS MONTH

Oddworld: New & Tasty LP

If you loved the remastered version of *Abe's Oddysee*, you might well be interested in this vinyl soundtrack. Available on black or green vinyl, the LP features a gatefold with the original opening cutscene transcript. You'll also get a Steam code for the game with it, plus download codes for both the original *Abe's Oddysee* and *New & Tasty* MP3 soundtracks.

Price: £40.00 **From:** oddworld.com/vinyl/

PICK OF THE MONTH

Artcade: The Book Of Classic Arcade Game Artwork

Several years ago, Tim Nicholls rescued an archive of arcade artwork from a prop company and now, after a Kickstarter campaign, thousands of hours of restoration work and help from Bitmap Books' Sam Dyer, he's ready to share this treasure trove with the world. Presenting the marquees, cabinet prints and panels as art in their own right, every spread is a blast from the past, with additional blurb in the index if you crave more substance.

The restorations are stunning, especially considering the poor state many of the older cabs must have been in then they were archived – faded colours have been made vibrant and wear and tear digitally erased. The end result is a beautiful book that is guaranteed to any make arcade-lover a little bit misty-eyed.

Price: £24.99 **From:** bitmapbooks.co.uk

Generation 64

To the uninitiated, the story of a bunch of Swedish coders who grew up with the Commodore 64 might not sound all that interesting. But as you read on and discover that some of these entrepreneurs now hold prominent roles at the likes of DICE, King and Spotify, it becomes a fascinating window into how the Commodore computer helped shape the modern digital world.

Price: £24.99
From: bitmapbooks.co.uk



PICK OF THE MONTH

Shark Protectors

As prices for classic games in good condition continues to spiral, it's worth doing a little more to protect those parts of your collection that perhaps weren't made with future-proofing in mind. Cardboard boxes like those that housed N64, NES, SNES and Game Boy games are easily damaged, which is where these sturdy plastic sleeves come in. Available in sizes tailored to snugly fit games of each supported format, these also boast reinforced corners to keep your precious games as safe and tidy as possible.

Price: From £2.49 each **From:** shark-protectors.com

Before Mario

This book of curios covers Nintendo's pre-1985 products, from board games and toys to the Game & Watch series, ending with the Famicom. It's a little bit light on words, owing to the fact that the edition contains both English and French text for every entry, but it's hard to beat the excellent photography that captures every detail of each item.

Price: £29.99 **From:** funstockretro.co.uk

BACK TO THE NINETIES



THE LATEST NEWS FROM JUNE 1999

[Arcade] Another month, another *Street Fighter* coin-op release. If they stay this good, though, we don't mind.

JUNE 1999 – The Keeper returns to the Dungeon, Descent 3 drops in, Street Fighter hits the arcades again, Puma Street Soccer debuts while Brave Fire Fighters warms up arcadeland. Richard Burton tries his hand at being a fireman…



Dungeon Keeper 2, developed by Bullfrog and released by Electronic Arts for PC, materialised this month. It continued in the footsteps of the original with you, again, playing the role of the fiendish evildoer, the Dungeon Keeper, who has a natty talent in murky, dank and downright evil dungeon design, keeping wannabe heroes at bay. Once you've designed your dungeon you can populate it with all manner of monsters.

The game was a mishmash of gaming genres, combining strategy (laced with a smidge of role-play), first-person shooter and god simulation. There was also a campaign mode requiring the collection of gems to open a portal to the surface world, leading onto a planned third instalment. While *Dungeon Keeper 2* didn't offer anything new in terms of originality, what it did have was slickly-executed gameplay, crisp graphics and plenty of dark humour throughout. Shortly after release Bullfrog began development on *Dungeon Keeper 3: War Of The Overworld*. Unfortunately it was cancelled in March 2000.

A third instalment that did make it to market, however, was *Descent 3*, the third in the science fiction, first-person, vehicular shooter series. You play a mercenary called Material Defender whose mission it is to help stop an alien virus infecting robots.

The vehicle you control is a spaceship that can rotate through a full-360 panoramic view in full-3D making for some splendid eye candy moments. In fact, the game engine was significantly enhanced over *Descent 2* with some wonderful graphics both in the underground labyrinth-like mining facilities and as you skim across planet surfaces.



[PlayStation] *Bomberman* gets mobile and tries his hand at karting. The results were not great.



[PC] *Descent 3* may be a second sequel but it was head and shoulders above the previous outings.

Single-player mode sees you attempt to negotiate through a set of levels full of enemies looking to slow your progress. Multiplayer mode features eight different games including *Monster Ball* (essentially football) and the almost obligatory capture the flag mini-game.

Descent 3 added a lot to the previous two *Descent* outings with its beautifully-crafted graphics and the stomach-churning sweeping ship movements. The game itself was wonderfully immersive and ridiculously fun.

Following on from last months arcade release of *Street Fighter III: 3rd Strike – Fight For The Future*, Capcom unveiled another coin-op, *Street Fighter EX2 Plus*. This was essentially an updated version of *Street Fighter EX2* with several tweaks. The character rosters had altered with Bison returning to the *EX2* series and Sagat making his *EX* debut along with several new characters. One big change was the Super Combos of *EX2* had been upgraded to Meteor Combos. These were more powerful and devastating but required all three Super Combo gauges to be full before activation. The gaming press criticised *Street Fighter EX2 Plus* for not introducing enough new features yet the playability was still top-notch.

More fighting coin-op action arrived this month with *Tekken Tag Tournament* from Namco. Although it was the fourth game in the *Tekken* series, it wasn't a continuation of the ongoing *Tekken* storyline, it being a spin-off and all.

You pick your team of two characters (almost all the fighters from previous *Tekken* games were available) with the

THIS MONTH IN...

COMPUTER & VIDEOGAMES

C&VG featured a preview of what would become a European launch title for the forthcoming Sega Dreamcast console. *The House Of The Dead 2* was a horror rail shooter that looked extremely promising, particularly with the newly-announced lightgun that would also be available at launch.



Official PlayStation Magazine (USA)

Sony was angered regarding the recently-released Bleem! – a commercial PlayStation emulator that allowed you to play PlayStation games on your PC and Dreamcast. Although Sony lost its filed lawsuit, the legal costs put Bleem Company out of business.



OFFICIAL DREAMCAST MAGAZINE (USA)

A new magazine for the impending Dreamcast console was available, albeit in a truncated 35-page taster issue. Amongst the advertorial fluff was an interesting interview with Shinya Nishigaki from Climax Graphics, the producer of the disappointing survival horror game *Blue Stinger*.



NEWS JUNE 1999



1 June saw the debut of Napster, the music file sharing website. Napster eventually ran in to legal problems with copyright infringement and was forced to close, although it came back three years later as an online music store.

2 June saw a slightly less modern technological breakthrough with the Kingdom Of Bhutan stopping its ban on television and begin broadcasting for the first time to celebrate the silver jubilee of Jigme Singye Wangchuck, King Of Bhutan.

11 June saw the death of American actor DeForest Kelley, best known for his role as lieutenant commander Dr Leonard 'Bones' McCoy, the cantankerous doctor in the original *Star Trek* series. He died from stomach cancer aged 79.

24 June saw the Cassini-Huygens space probe make its nearest flyby of Venus passing just 372 miles from the planet as part of a gravity-assisted manoeuvre on its rendezvous to Saturn.

Amongst the movies premiering this month were *Austin Powers: The Spy Who Shagged Me* on 8 June, *Wild Wild West* and *South Park: Bigger, Longer And Uncut* (both 30 June) and *Big Daddy* (17 June).

It was a busy month for music albums releases, too, with a crop of top-notch tunes. Among the best releases were *No Angel* (Dido), *Californication* (Red Hot Chilli Peppers), *Euphoria* (Def Leppard), *Synkronized* (Jamiroquai), *Slipknot* (Slipknot), *Running With Scissors* (Weird Al Yankovic), *The Soft Bulletin* (The Flaming Lips), *Significant Other* (Limp Bizkit), *Surrender* (The Chemical Brothers) and *Play* (Moby).



[PlayStation] Street soccer has never been so soullessly inept or lacking in fun.

CHARTS

JUNE 1999

NINTENDO 64



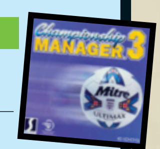
1 FIFA 99 (EA)
2 South Park (Acclaim)
3 Star Wars: Rogue Squadron (Nintendo)
4 The Legend Of Zelda: Ocarina Of Time (Nintendo)
5 WCW Vs nWo: Revenge (THQ)

PLAYSTATION



1 Metal Gear Solid (Konami)
2 Rugrats (THQ)
3 A Bug's Life (Sony)
4 UEFA Championship Manager (Eidos)
5 Constructor (Acclaim)

PC



1 Championship Manager 3 (Eidos)
2 Star Wars: X-wing Alliance (LucasArts)
3 Civilization: Call To Power (Activision)
4 Rollercoaster Tycoon (Hasbro)
5 Silver (Infogrames)

MUSIC



1 Bring It All Back (S Club 7)
2 Everybody's Free (To Wear Sunscreen) – (Baz Luhrmann)
3 Boom, Boom, Boom, Boom!! (Vengaboys)
4 Sweet Like Chocolate (Shanks & Bigfoot)
5 That Don't Impress Me Much (Shania Twain)

first team to have one character drained of all their health losing. This required a tactical use of character switching to ensure both had health and sufficient time for recovery.

Tekken Tag Tournament, not being weighed down with backstories, allowed newbies and *Tekken* fans alike to immediately enjoy the frenetic fisticuffs. Whether you were a skilled combo king or button masher, *Tekken Tag Tournament* was a great level ground but also extremely good fun.

The latest game in Sega's *Real-Life Career* series saw you take the role of a fire-fighter complete with hose controller. Yes, that's right: a hose controller...

The aim of *Brave Fire Fighters* was, unsurprisingly, to put out fires while saving trapped people. You have an adjustable spray nozzle on the controller but you also have to watch pressure meters on-screen as you dowse the flames. The controller was used much in the same way as a first-person shooter, instead of spraying bullets you're spraying water. The audio is worth a mention, as the crackle and roar of the flames added atmosphere to the fun.

Brave Fire Fighters was the first game by Sega to utilise the modified Sega NAOMI hardware, entitled Sega Hikaru, featuring a custom graphics chip. In fact, Hikaru was designed with *Brave Fire Fighters* in mind to showcase its realistic graphics. The game itself was not as exciting as you might expect with it feeling more like a novelty game to show off Hikaru's capabilities. A handful of games were made using Hikaru but it proved too expensive and Sega reverted to the cheaper NAOMI 2 system.

Puma Street Soccer for PlayStation found its way to the high street this month. After playing it for a while, you'd wish it would get lost and find itself in a nearby bin, though…

The officially-licensed football game (which is usually a bad sign in itself) featured a four-a-side format in a variety of enclosed arenas and courts. The simplistic run-and-kick mentality with an occasional 'Super Shot' option was pretty fun for a short while, but it waned quickly with you yearning for a full pitch and more diverse kicking options.

Puma Street Soccer was graphically inept with ropey polygonal players, jerky movement and frustratingly inconsistent gameplay. It just wasn't fun. Comparatively speaking, if *Sensible Soccer* was Barcelona and *Match Day II* was Leicester City then *Puma Street Soccer* was a bunch of mates kicking an old can of Top Deck against a garage door. Yep, it stunk that badly…



[PC] *Dungeon Keeper 2* may have lacked originality but it still played well with lovely graphical improvements.

There was more PlayStation ghastliness with *Bomberman Fantasy Race*, a great franchise but this terribly generic *Mario Kart* clone barely mustered anything like the fun and excitement of the game it so desperately wanted to emulate.. *

retro GAMER.net READER'S REVIVAL

Metagalactic Llamas Battle At The Edge Of Time

“HALF A LLAMA, TWICE A LLAMA, NOT A LLAMA, FARMER LLAMA”

#100

» JEFF MINTER » VIC-20 » 1983

From the dawn of time (1981) Jeff Minter has bashed out code that amazes, baffles, amuses and frustrates, but there's certainly nothing wishy-washy about it. With a Llamasoft game you knew what you were getting – something different. But with these early Jeff Minter titles, there was often a reoccurring way to things – they're usually a hard-as-nails shooter with animals. *Metagalactic Llamas Battle At The Edge Of Time* carries on with this theme, and then some…

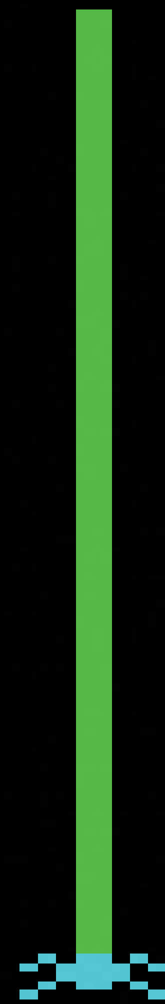
We take control of a Metallama, who is under attack from Zzyaxian cyborg arachnid mutants. There's plenty more of this stuff – the instruction sheet contains a whole page of loony backstory that's as enjoyable to read as the game is to play.

Now not unlike other Jeff Minter shooters of the time, *MLBET* has a complicated control system – your llama grooves about at the bottom of the screen in a left/right kind of motion, which is more or less common enough for a llama. However as this particular llama is a Metabeast, it goes without saying that it spits laser fire towards the heavens, diagonally, and why on Earth wouldn't it? It's hellbent on the destruction of hordes of arachnid mutants. These space spiders descend to llama-level on their web threads, whereupon they mutate into Weeviloids.

And lets add one more variable – Mr. Metabeast possesses a deflector shield which can be adjusted for height and enables llama-laser-spit to be deflected downwards, which is nice.

So, kill a designated number of spiders to move onto the next wave, where there are swifter and more numerous spiders to spit at. What more could one desire in 3.5k of code. See, you know what you're getting with Mr. Minter. *

CLARANCE FRANK






Hi:

30 YEARS OF ENTERTAINMENT

When Masayuki Uemura came to the UK earlier this year to celebrate the 30th Anniversary of the NES, we sent Paul Drury to get the inside story of Nintendo's iconic first cartridge-based console from the man who designed it

Masayuki Uemura, the NES' creator, gives his head a little shake and laughs. "I thought the NES taking off was impossible," he admits. "I think Mr. Arakawa, [first president of Nintendo Of America], never thought it would either. But in the entertainment industry, the unexpected happens. I feel so grateful people still play the NES. I can't believe I'm here!"

Professor Uemura is sitting opposite us in the conference room of the National Videogame Arcade in Nottingham, speaking through his affable interpreter Akinori 'Aki' Nakamura. He has been invited by the NVA to give a talk about the creation of the Famicom, renamed the Nintendo Entertainment System or NES for its Western release, and seems genuinely surprised with the love that the console still generates three decades after it made it to our shores. The event has been sold out for weeks because though in the UK the NES itself never sold in the huge numbers it did in America, we all know what came next. Its worldwide success – 62 million units shifted puts it in the top ten of bestselling consoles of all time – led to the SNES, N64 and the Wii and first introduced us to such perennial favourites as *The Legend Of Zelda*, *Final Fantasy* and, of course, the all-conquering *Super Mario Bros.*. The NES truly announced Nintendo's arrival in the console business.

Retro Gamer has been granted a meeting with the man behind Nintendo's first cartridge-based machine before his talk later in the evening. Uemura and Aki, both dressed in smart suits, bow politely and offer us their business cards. We nod awkwardly and in lieu of a calling card of our own, we present them with some locally brewed ale, which elicits slightly bemused but appreciative smiles. The mood suitably lightened, Uemura explains that just like Ralph Baer, the father of the home ▶



» Masayuki Uemura is the man who designed the Famicom/NES. He also created its 16-bit follow-up.







Official retro GAMER™ Seal of Quality

SPOT THE DIFFERENCE

The many faces of Uemura's 8-bit console

FAMICON



■ The distinctive colour scheme of the Famicom was taken from Nintendo President Yamauchi's scarf, though Uemura says they never quite got the shade right.

■ The controllers were wired into the console to save on production costs and could be clipped into place on either side of the machine.

■ The second controller had a built-in microphone which could be used as an input device, an idea clearly ahead of its time.

NES



■ The front-loading system was designed to make the machine look like a video recorder rather than a games console.

■ The restyled controllers adopted the colour scheme and more angular look of the NES and could now be plugged in and out.

■ Cartridges were shielded once inserted to discourage children with wandering fingers getting an electric shock.

TOP LOADER



■ The remodelled NES-101 came out in 1993 as a cheap 'entry level' console and allowed cartridges to be inserted from above, hence its nickname.

■ The rounded controllers clearly used the same template as the SNES and were considerably more comfortable in the hand.

■ Its smaller size and sleeker appearance is something of a nod to design of the original Famicom, though grey still prevails.



▶ console, his background was in television technology rather than games.

"I went to Sharp as an employee before Nintendo because I wanted to develop TV hardware," he says. "The fact I knew a lot about the hardware of a TV really helped when developing videogames. TV engineering is a good background for console development!"

Of course Nintendo itself was not yet involved in the emerging world of videogames when he joined in the early Seventies. The company had a long history of producing Hanafuda cards, something Uemura credits with instilling an obsession with the quality of Nintendo's output. These playing cards were used amongst the gambling fraternity and if your product was shoddy, you risked the ire of some potentially unsavoury types. "And you could play a lot of different games with them," he adds, "like a videogame console."

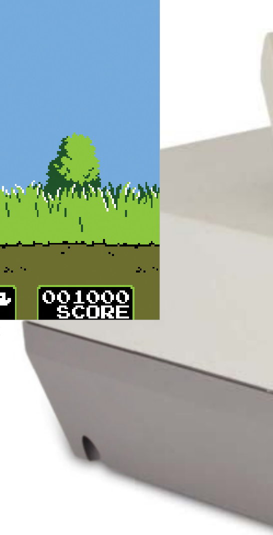
The famous 'Nintendo Seal Of Quality' may indeed have its origins in the ancient cards which the business had been built upon, though by the early Seventies the company was starting to experiment with electronic toys. One of the first projects Uemura was involved with was a lightgun game and Nintendo had some success in the public arena with its Laser Clay Shooting System and *Wild Gunman*, the latter game combining this lightgun technology with a full motion videos of revolver-toting cowboys.

In the home market, 1974 saw Nintendo secure the rights to distribute the original games console, the Magnavox Odyssey, in Japan and so it was no surprise when it began releasing its own standalone TV games, which offered various flavours of *Pong* and sold in their millions in the latter half of the decade. Nintendo even produced dedicated machines such as *Breakout* clone *Block Breaker* and *Racing 112*, a generic driving game with its own steering wheel attached to the console but Uemura remembers the arrival of the all-conquering *Space Invaders* in 1978 made the company refocus on its arcade business. After a few moderate successes such as *Space Firebird* and *Space Fever* and a notable failure in *Radar Scope*, a coin-op shooter he worked on which left American arcade gamers distinctly unimpressed, Nintendo tried a different





» [NES] *Duck Hunt* made great use of the Zapper that came with the NES and it still plays well today.





» [NES] *Super Mario Bros.* was an important release for Nintendo and massively boosted sales of the system.



» Uemura has been travelling the world talking about his famous console. He remains staggered by its incredble success.

approach. Repurposing the 'fire' button as a 'jump' function, *Donkey Kong* was a huge hit in 1981 and had a profound effect not just on Nintendo's fortunes in the coin-op world, but in its console ambitions too.

"We licensed *Donkey Kong* to Coleco for their home console and of course we needed to evaluate it," smiles Uemura. "Coleco was a toy company, like Nintendo, so we had a long history of looking at what they were doing, not just with videogames. We looked at the specifications of their hardware and what they'd done with our licensed product. They had done a very good version of *Donkey Kong*, [quite] like the arcade game. That was a surprise! It made us feel confident…"

The commendable version of *Donkey Kong* that appeared on the ColecoVision not only became the 'killer app' for that console, it suggested to Nintendo the commercial viability of producing its own machine. Uemura, who at this stage was heading up the videogame division, certainly saw the potential of a cartridge-based system and, as early as 1981, began work on designs for what would become the Famicom, though not everyone shared his optimism.

"Back then at Nintendo, no one was imagining we'd make a console with interchangeable cartridges because Game & Watch was huge," he says. "Everyone thought that was the kind of product we'd make in the future. All the engineers I had were dispatched over to that division to help them out. I couldn't do the work I wanted to do because of that."



The huge success of Nintendo's handheld series, particularly at the beginning of the Eighties when titles like *Turtle Bridge* and *Snoopy Tennis* sold over a million units, may have hindered progress on his console plans in the short term, but it gave Uemura valuable thinking space. "Because of the lack of personnel [in my division], I couldn't work, which meant I could talk to a lot of people outside of the company to find out what was going on. Of course, I talked to Atari. I could get a lot of information about console games. This research time was very precious if you think about it. I could come up with a specific idea of what I wanted to do."

Uemura leans back in his chair and starts to explain the thought processes which would determine the internal workings of his console. He wanted a CPU small enough to allow a sound chip to be integrated onto the board, thus keeping costs down, and Nintendo had a relationship with chip manufacturer Ricoh, whose 6502 processor would fit the bill. "But it was a huge problem within the company because *Donkey Kong* was made with a Z80," sighs Uemura, "so using a 6502, we couldn't use the source code. It was like throwing away a precious resource! I decided to do it anyway as chief engineer. Others said I could only do that because I wasn't programming it myself! It did mean we had to do *Donkey Kong* from scratch…"

At least Uemura considered the needs of those poor programmers tasked with converting the game to a new processor by consulting colleague Shigeru Miyamoto, the man behind *Donkey Kong*, when determining the colour palette of the Famicom. "He knew which colours would be needed to recreate his games," says Uemura, "and he would tell me how many colours the console would need [to display]. I would ask and he would answer. That was how we worked!"

With some key hardware decisions made, Uemura and Nintendo also settled on cartridges as the storage medium for the console. "We had decided its sole function was to play videogames. If it's dedicated to that, we won't need to alter data, so we chose ROM over RAM but then in 1983, the USA had a big videogame shake-up with Atari. The media thought a games-only console was out of date. There was a buzz about home computers and Apple was getting big, too. I was afraid we wouldn't get media attention so I



KONG STORY

If you've read David Sheff's excellent history of Nintendo, *Game Over*, you'll be aware that Nintendo initially approached Atari about distributing its console in the United States, and Uemura was one of the people tasked with showing Atari its work in progress. "They were really surprised we were making our own hardware [for a home console]," he recalls. "We had to show them the blueprint of the PCB to prove we had made it. They didn't believe it was our work! But the reason we could make such hardware is because we had made such amazing arcade hardware. That was very important. We weren't just looking at other consoles. We were thinking about *Donkey Kong*!" Indeed, it was a squabble over the rights to the home conversions of *Donkey Kong* which contributed to the deal breaking down." Does he think a partnership between Atari and Nintendo could have ever happened? "That's unimaginable now," laughs Uemura. "I wasn't in charge of making decisions like that so I can't really say." What he can say is that *Donkey Kong* remains his favourite game. Taste and technical nous, Professor Uemura…



» [NES] *Double Dragon* uses a limited number of tiles, but careful repetition provides a nice image.



» [NES] Complex multi-sprite images like this gorilla robot look nice, but are prone to flickering.

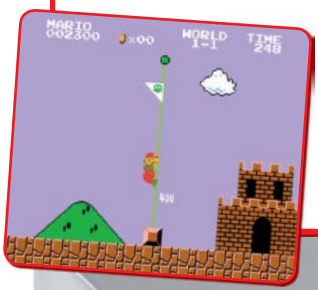


FRANCHISE STARTERS

The hit game series' that started on the NES

SUPER MARIO BROS.

■ Of course he had appeared in *Donkey Kong*, albeit with a different name and profession, and Mario and Luigi had already starred in an frenetic coin-op, but this is where the brothers really showed the world what they could do. *Super Mario World* may have topped our chart of your favourite games of all time but this is where it all began.





MEGA MAN

■ Rock hard – that's the man himself and the level of difficulty typical in this long-running series which debuted in 1987. The side-scrolling run-and-gun action of the original has you leaping platforms and blasting foes with a weapon handily attached to his arm. Defeating bosses rewards you with new weapons and so the carnage continues.

LEGEND OF ZELDA

■ After Mario, Link must surely be Nintendo's best-known hero and he too began his princess-saving career on the NES. The original game was a launch title for the Famicom Disk System in 1986 before appearing in cartridge form for the NES a year later and established the action adventure template for this superlative series.





CASTLEVANIA

■ Another game that first appeared on the Disk System, it arrived on cartridge for the NES in 1987 and introduced Simon Belmont, vampire hunter and whip-cracker extraordinaire, to the gaming world. The first game is a solid platformer but if you're new to the series, you may want to start with *Symphony Of The Night* on the PlayStation.

FINAL FANTASY

■ With the 15th instalment due out this year, not to mention the host of spin-off titles, this may seem the most inappropriately-named franchise in gaming history but when Hironobu Sakaguchi created the original for Square in 1987, it was repeatedly his last gasp attempt to have a hit game. Its success means we've been playing them ever since.





METROID

■ The series with the most famous reveal, in both senses of the word, in videogame history, began on the Disk System in 1986. Combining exploration, combat, platforming, atmospheric aesthetics and a little brainwork too, this laid the foundations for some truly excellent episodes, particularly *Super Metroid* for the SNES.







explained Family BASIC was on the way [to make the Famicom] like a home computer."

Nintendo did indeed produce a keyboard and data recorder package along with its own dialect of BASIC in 1984, allowing users to tinker with its own game creations within some fairly restrictive parameters and though it hardly turned the console into a fully-fledged home computer, it did show Nintendo was prepared to experiment with new ideas.

This is perhaps best illustrated when it came to designing the controllers for the console. We have brought along a NES pad, and we hand Uemura the grey rectangle with its distinctive D-pad and bright red buttons, asking if he was responsible for designing this iconic piece of hardware. "It was the most difficult choice I had to make," he says, cradling the controller like a beloved child. "I had designed arcade games [in the past] and they used joysticks. The engineers I was working with on the Famicom said, 'We have to use a joystick!' But there was one guy who had gone over to work on the Game & Watch [team]. He came back to our project and he brought the control unit created for the multi-screen *Donkey Kong* Game & Watch to our division. He took out the screen and connected the electronics to the Famicom and we played!"

Previous entries in the Game & Watch series had only needed buttons for left and right but *Donkey Kong* required upward movement so Mario, or Jumpman as he was known back then, could rescue his love interest. A joystick clearly wouldn't work with a folding dual-screen handheld, so the revolutionary D-pad was created and Uemura realised this would be ideal for his new console. "Naturally, we could have used a joystick but we were thinking of [the Famicom] as a toy and toys you put on the floor. Children might step on a joystick and it could hurt their feet… and break the controller! Also, when we played, *Donkey Kong* Game & Watch we found we were only looking at the top screen. With a TV screen, you only look at that, not the controller. You need that sense, just using your fingers."

Of course, it proved to be an excellent design decision and the ergonomically-sound D-pad would become the industry standard for decades to come, even today, all of the current-generation consoles use it in one way or another. Not all the innovations of the Famicom controller were to be as influential, though, at least not in the short term. Uemura took the unusual step of including a microphone in the second controller, partly inspired by Japan's enduring love affair with karaoke. Was he really considering *Singstar*-style games at the start of the Eighties, we ask?

"I was thinking about it," he nods, with a twinkle in his eye. "I was also thinking about using the voice to play the role of the controller in games. I made sure the voice coming in from the microphone could be responded to by the CPU but only a few titles came out that made use of that function."

Clearly, it was an idea ahead of its time. With the Famicom project nearing completion and the core hardware taking shape nicely, there were still some cosmetic decisions to be made. It was decided that the cartridges themselves should be the same size as audio cassettes, allowing Japanese consumers to use pre-existing household furniture and containers to store their burgeoning game collection, and then there was the colour of the machine itself.

"We discussed the colour of the console a lot," remembers Uemura. "Should we make it look like a toy or more like serious hardware? In the end, President Yamauchi's favourite colour was red and so we used the same shade as his muffler."

If you're now worrying about Yamauchi's health – specifically his nose – we can assure you that we clarified exactly what Uemura meant by 'muffler' and were relieved to find he was referring to the President's scarf. Thus the aesthetically-pleasing strawberries-and-cream colour scheme of the Famicom was agreed on… except the console wasn't called that yet. The machine was not given its name until shortly before its release and Uemura explains his very personal connection with the naming process with obvious pride.

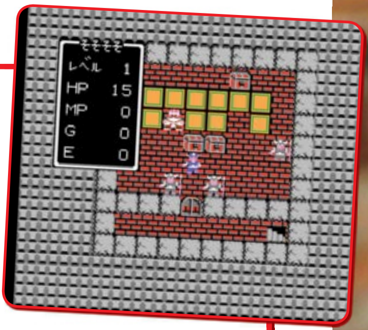
"I always talked about work stuff with my wife. She was always willing to listen. I told her the name [of the console] had not been decided and it was taking a long time to come up with a good name. There were already 'personal computers' in Japan and we were discussing that [our console]



BATTLETOADS

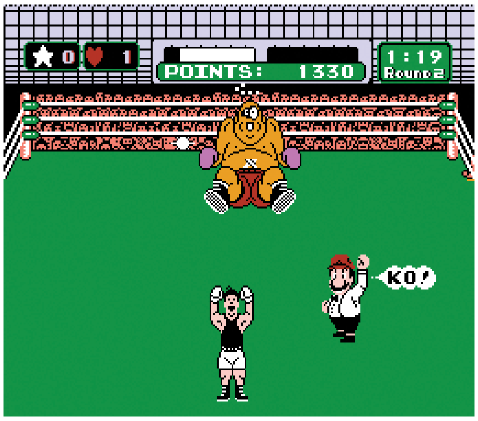
■ Though Japanese and American developers dominated the NES release schedules, the console did at least have one notable British success story. Tim and Chris Stamper established their reputation for excellence on the ZX Spectrum as Ultimate but having changed its name to Rare, began a long and fruitful relationship with Nintendo.





DRAGON QUEST

■ A long-running series from Enix that started out on the NES, *Dragon Quest* (or *Dragon Warrior* as early titles were known in the West) helped popularise RPGs and establish mainstays of the genre, from turn-based combat and random encounters to controlling a party of adventurers as they battle to save the day.



» [NES] *Mike Tyson's Punch-Out!!* was superb, being a slick adaptation of Nintendo's popular arcade game.

was not 'personal', it was right there for everyone, so it had to be 'family', didn't it! My wife said, 'Okay, but it has to be Famicom. You have to make it shorter!' I took that idea straight to the company, that it should be 'Famicom'. President Yaumauchi said, 'What the heck is that?!' He really didn't like it. I explained this wasn't just a 'personal computer', it was for all the family and that we Japanese tend to shorten everything and I thought it was a good name. He said, 'No, it's not a good idea to shorten [the words] at the beginning. If people want to start calling it that later, that's okay, but at the start, we needed to call it 'Family Computer.'' So that's how the name came about!"

Nintendo's Family Computer was launched in Japan in 1983 and, according to Uemura, it sold 400,000 consoles that year, a respectable number though he is quick to point out that to be considered a 'hit' you needed to shift a million units. Moreover, defects in some of the graphic chips created by Ricoh and problems with the joypads soon became apparent. The Famicom had its controllers hard-wired to the console, which was a cheaper option than providing a joypad connector but proved costly in the long run. Nintendo hadn't anticipated passionate gamers mashing and yanking their controllers so aggressively in the heat of play and a damaged joypad meant the whole ▶

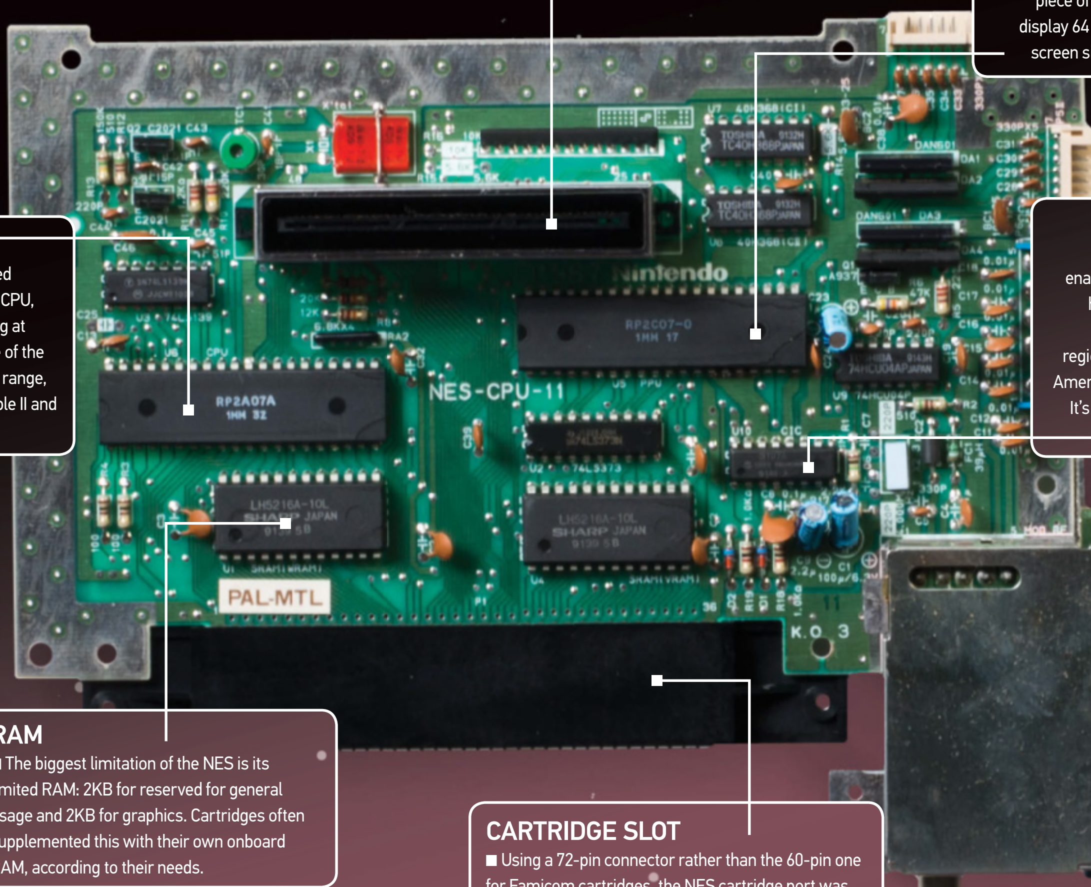


» "My role was keeping down the cost," explains Uemura. "As long as it was cheap, the engineers could do whatever they wanted."

"I always talked about work stuff with my wife. She was always willing to listen"
Masayuki Uemura

UNDER THE HOOD

Here's a look at the key components of the NES



EXPANSION PORT

■ This expansion port was included for the possibility of any extra add-on devices for the console, such as disk drives and modems. However, none of the projects using the expansion port ever saw the light of day, so it's a vestigial connector.

PPU

■ The Picture Processing Unit was custom-built for the NES, again by Ricoh. It was a very capable piece of graphics hardware in 1983, able to display 64 sprites and up to 25 colours on the screen simultaneously from a palette of 54.

CPU

■ The Ricoh 2A03, a modified version of the popular 6502 CPU, is an 8-bit processor running at 1.79MHz. It's a close relative of the CPUs used in the Atari 8-bit range, the Commodore 64, the Apple II and the BBC Micro.

LOCKOUT

■ The 10NES lockout chip enabled Nintendo to control who had the ability to release NES games, as well as enforcing regional lockouts between North American and European consoles. It's also a cause of the infamous 'blinking light' error.

RAM

■ The biggest limitation of the NES is its limited RAM: 2KB for reserved for general usage and 2KB for graphics. Cartridges often supplemented this with their own onboard RAM, according to their needs.

CARTRIDGE SLOT

■ Using a 72-pin connector rather than the 60-pin one for Famicom cartridges, the NES cartridge port was designed to replicate a video recorder's front-loading mechanism. However, the pins can easily become bent and dirty, leading to errors.



console was unusable. "The main thing I remember from that time is the defective consoles being returned," sighs Uemura, who estimates a staggering 100,000 faulty Famicoms came back during that first year. "All these problems we had to overcome! The whole company had to get involved to resolve them. Yes, I felt pressure but it was exciting because everyone was helping us out."

The company rallied round its new venture, partly, suggests Uemura, due to increased competition in the handheld market previously dominated by Game & Watch, and by the end of 1983, its stocks of the Famicom had sold out. "I thought that was the end of it," he shrugs. "Personally, I was pessimistic but then in February 1984, distributors started asking me when we were making more! Kids were asking for it. There is a custom in Japan for grandparents to give money to children and this is what they wanted to spend it on!"

Though Uemura maintains the initial launch of the Famicom in his home nation was generally viewed as 'a failure', there was still talk of the company learning from its mistakes and revamping the console for the US market. Nintendo did, at least, have some indication that its videogames were valued across the Pacific. The Nintendo Vs. System was doing well in American arcades and Uemura recalls seeing the February 1985 edition of trade magazine *PlayMeter* showing Nintendo titles such as *Vs. Tennis* and *Vs. Pinball* dominating the charts. Nintendo were still producing games that people wanted to play but the negative image of home consoles which had followed the spectacular downfall of Atari and other key industry players was a significant barrier to overcome.

"We thought by changing the exterior of our console, we could make ourselves seem different," explains Uemura. "The front-loading system for the NES was designed to make it look like a video recorder [not a games console]. Also, the US is a dry country so we wanted to shield the cartridges… we didn't want children getting [an electric] shock!"

There were other, more physical, concerns that influenced the redesign of the Famicom for the American market. "The hands of American children are bigger than Japanese children. We were worried they might find it hard to use the controller. Also, they didn't have D-pads but we thought this might make our console stand out from those that used joysticks."

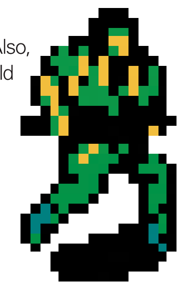
After the problems with the controllers in Japan, Nintendo decided to make the NES controllers detachable. It also dispensed with the microphone, figuring that karaoke was not a big draw in the States, thus saving on cost and they also recognised that American homes were generally larger than their Japanese counterparts so made the leads much longer. All sensible decisions though one addition for the US launch was a little more left-field. The console was bundled with its own Robotic Operating Buddy, or R.O.B., a toy robot that linked up with the NES. "We pushed that futuristic image," says Uemura. "This was not just a videogame. This was something new!"



» [NES] Like several high-profile releases, *The Legend Of Zelda* started off life on the Famicom Disk System.



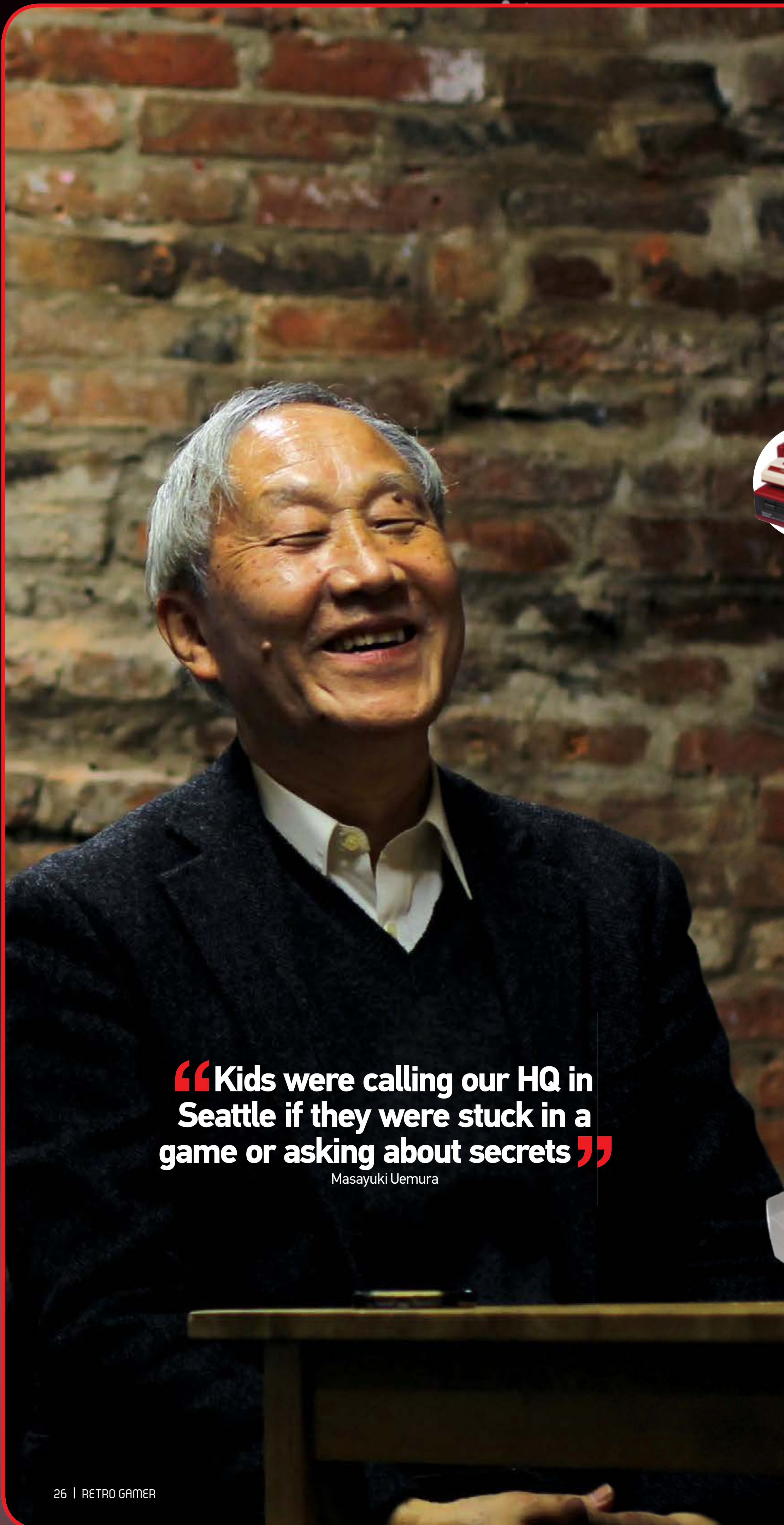
» "We didn't want the sound to be too annoying in the house, even if it was played repeatedly," says Uemura of the Famicom's audio.



The team also emphasised the primary 'entertainment' function of the machine by renaming it the Nintendo Entertainment System, a title which was only decided a month before the console's launch in the United States. Besides, the 'Family Computer' tagline had been used by rival manufacturer Mattel in its advertising for its Adam computer. Nintendo also included the NES Zapper in the package, after extensive market research had returned a not altogether unexpected finding. "Americans like guns", says Uemura, with a wry smile.

The NES launched in the United States in 1985 along with 17 games, predominantly titles taken from its Vs. arcade system. Porting tried-and-tested coin-op hits to home systems was a traditional way to boost console sales and indeed the kids of America were soon to be found playing *Vs. Tennis* et al on the many demo machines that had been set up in toy stores for free, rather than spending their precious quarters in the arcade. "It was still a risk," argues Uemura. "Just because these games were popular in the arcade, it didn't necessarily mean they would be in the home. The president of Toys R Us played the NES and said, 'This will sell!', which helped a lot. We were expecting sales of the NES to be 3 million. Then *Super Mario*





MORE FROM UEMURA

COLOUR TV GAME SYSTEM



■ Nintendo took its first tentative steps as a console manufacturer in 1977 with the Color TV-Game 6. Featuring half a dozen versions of *Pong*, it was shortly followed by TV-Game 15, which served up more bat-and-ball games and added wired controllers, making it considerably more user-friendly. If you have a white version of the original unit, you have a real rarity as, apparently, only a few hundred were ever produced.

DISK SYSTEM



■ This Japanese-only peripheral allowed a disk drive to be attached to the Famicom console via the cartridge port and used bespoke floppy disks called 'Disk Cards' which could store 112K, which was a considerable size on its release in 1986. "Based on results, the disk system wasn't a good idea," acknowledges Uemura, "but from a developers [point of] view, it was rewritable and it did reduce costs." A release in the West was mooted but never materialised.

ZAPPER (BELOW)

■ Originally resembling a revolver when released in Japan to tie-in with the cowboy-themed *Wild Gunman* game, this lightgun was remodelled for the North American market, adopting a futuristic blaster look. Initially produced in NES grey, a version came in fluorescent orange, presumably to distance itself even further from an actual firearm. Many pixelated birds succumbed to its firepower when *Duck Hunt* was bundled with the console.

SUPER FAMICOM



■ What Uemura did next. He was lead designer again on what would become one of the most beloved consoles of all time and home to some of the best games ever made. Uemura politely declined to answer any questions about his follow-up to the NES during our interview, though alluded to many intriguing tales concerning its creation. Perhaps when the SNES also reaches 30 we'll get to hear them.

» "I would like to have added larger sprites," says Uemura when asked if he'd have done anything different with his console. "Characters were only 8x8 pixels."



> "Kids were calling our HQ in Seattle if they were stuck in a game or asking about secrets"
>
> Masayuki Uemura

TO THE MAX

The games and chips that expanded the NES' capabilities



MEGA MAN 2

CHIP: **MMC1**

■ The first of Nintendo's custom memory management controller chips was used to switch between banks of program and character ROM, and it added support for important things like game saving and multi-directional scrolling. As a result, many games used it – literally hundreds of them, from both Nintendo and its third parties.

SUPER MARIO BROS. 3

CHIP: **MMC3**

■ The most popular of Nintendo's add-on chips was used in many NES games, and provided additional RAM, a pair of selectable 8KB program ROM banks, two 2KB character ROM banks and four 1KB character ROM banks. A scanline-based IRQ counter is also included to improve split-screen scrolling.





COBRA TRIANGLE

CHIP: **AOROM**

■ Chris Stamper's memory management controller is relatively simple, offering a 32KB ROM bankswitch and character RAM, but it has an odd quirk in that it uses one-screen mirroring, meaning that only one nametable is used for all four quadrants of the screen. As you might expect, it was used in games developed by Rare.

AKUMAJOU DENSETSU

CHIP: **VRC6**

■ As well as offering bank-switching for both program and character ROM and a CPU cycle-based IRQ counter, this advanced chip added three additional sound channels. In the US and Europe, *Castlevania III* used Nintendo's MMC5 chip instead, as the NES can't utilise extra sound channels like the Famicom.

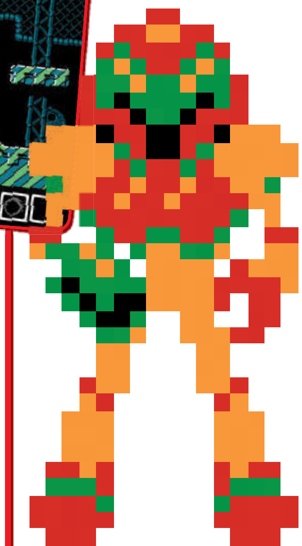


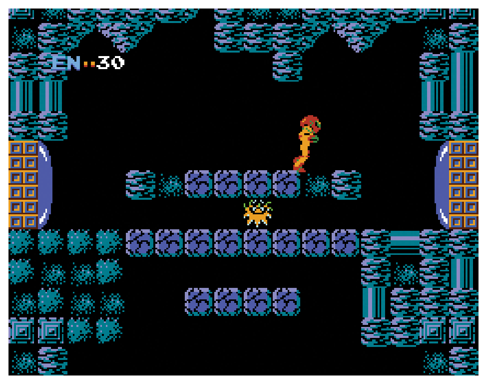


GIMMICK!

CHIP: **SUNSOFT 5B**

■ Sunsoft's FME-7 controller allowed for program ROM to be switched in 8KB banks and character ROM in 1KB banks, and contained a CPU cycle-based IRQ. However, the upgraded Sunsoft 5B version used in *Gimmick!* also included a version of the Yamaha YM2149, adding extra sound channels that set the game apart from its peers.





» [NES] *Metroid* was one of several NES games that featured a Password Pak, after starting off life on the Disk System.

Bros. came out about the same time as it entered America. The rest is history."

New hardware needs a 'killer app', a piece of software that captures the public imagination and makes consumers snap up a machine. *Super Mario Bros.* must rank as one of the best examples of this, becoming the biggest-selling title in videogaming history at the time and igniting America's love affair with all things Mario. There was a real buzz about this new console from the East and Uemura remembers tales of phones ringing off the hook at Nintendo Of America. "Kids were calling our HQ in Seattle if they were stuck in a game or asking about secrets. Our employees couldn't work effectively! We had letters from parents, too. I remember getting some that were really unhappy we hadn't included Stage 2 [the pie factory] in the NES version of *Donkey Kong*. We had to say sorry, it wasn't possible, but it made me realise parents were really evaluating the NES."

So despite the initial predictions from experts that Nintendo was foolhardy releasing a console after the so-called videogames crash of the mid-Eighties, the NES ended up dominating the American and Japanese markets for the rest of the decade, ably filling the gap left by Atari's fall from grace. Was timing a key factor in the colossal success of the console, we ask?

"You understand the meaning of the word 'Nintendo'?", Uemura replies. "Leave luck to heaven," we answer. He looks us right in the eyes and chuckles, "Well, there you are."

As our time with Uemura draws to an end, an orderly queue forms of National Videogame Arcade staff politely asking if he might autograph various bits of NES hardware. We dutifully join the line along with our photographer Matt, who clutches a boxed console in mint condition. Neither of us owned the machine back in the day but, as with so many Europeans, we have come to love it in retrospect. As Uemura gets busy with a magic marker, we ask him how important it was to him that his console was embraced not just in his native Japan but across the globe?

"From a management perspective, of course we want to sell to everybody in the world," he says, after a long pause, "but it's not about that from an engineer's perspective. It's about whether the hardware they produce will be loved and esteemed by everyone. That's what we struggle to do. Personally, I thought it was great hardware but I didn't think it would be accepted [in the way it was]. And remember, the people that made the games did not grow up playing videogames. Creating something in their minds and interacting with it on a TV screen was really exciting for them. That excitement was passed on from the developer to the player at home. Hardware can allow you to go beyond your imagination. Like [James] Watt invented the steam engine and it set other people's imagination free…"

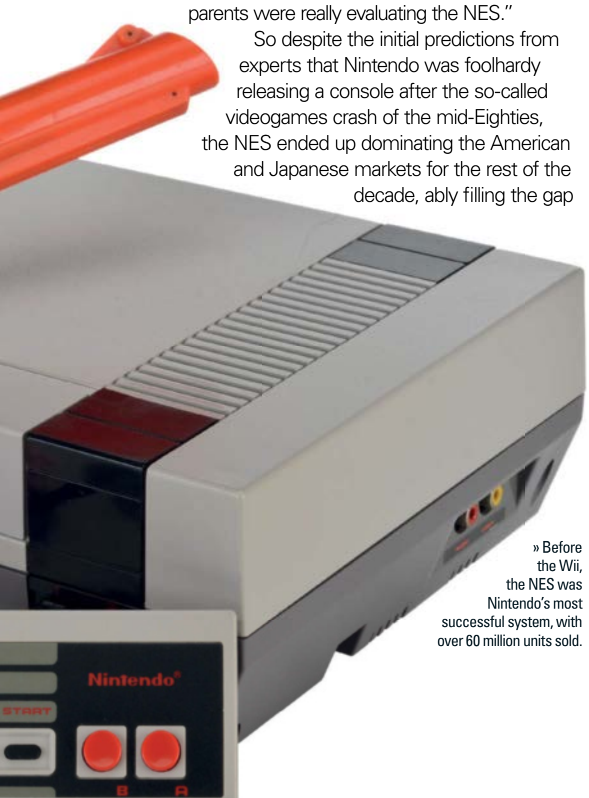
It's a powerful point and Uemura's answer gives us the required confidence to ask him one final question. What role does he think videogames have played in fostering an understanding and collaboration between the nations of East and West? A gentle smile spreads across Uemura's face.

"Childhood is universal," he says. "We are different cultures but we share that universal sense of childhood. To children, it didn't matter if this software was coming from the East or the West. Kids loved Mario and parents loved [the NES] because their kids loved it. Children will be excited by similar things despite cultural diversity. I'm teaching at the university in Kyoto right now and [the word] 'jump' is used in Japan, taken straight from English. Kids, anywhere in the world, want to jump! We could integrate that into videogames. It's about play. The NES also had an important role in transmitting Japanese culture to the world and we received influences from the rest of the world. If America hadn't invented consoles, we wouldn't have the NES!"

The Nintendo Entertainment System as a symbol of peace and understanding may be pushing it slightly but it undoubtedly makes us look at the unassuming grey breeze block in a different light. As we shake hands with Uemura and Aki and say our goodbyes, fellow journalist Gemma asks its creator what the console symbolises to him?

"It's the device that changed my life," he laughs. "It made it go crazy! After all these years, I'm still talking about it, coming here, all over the world."

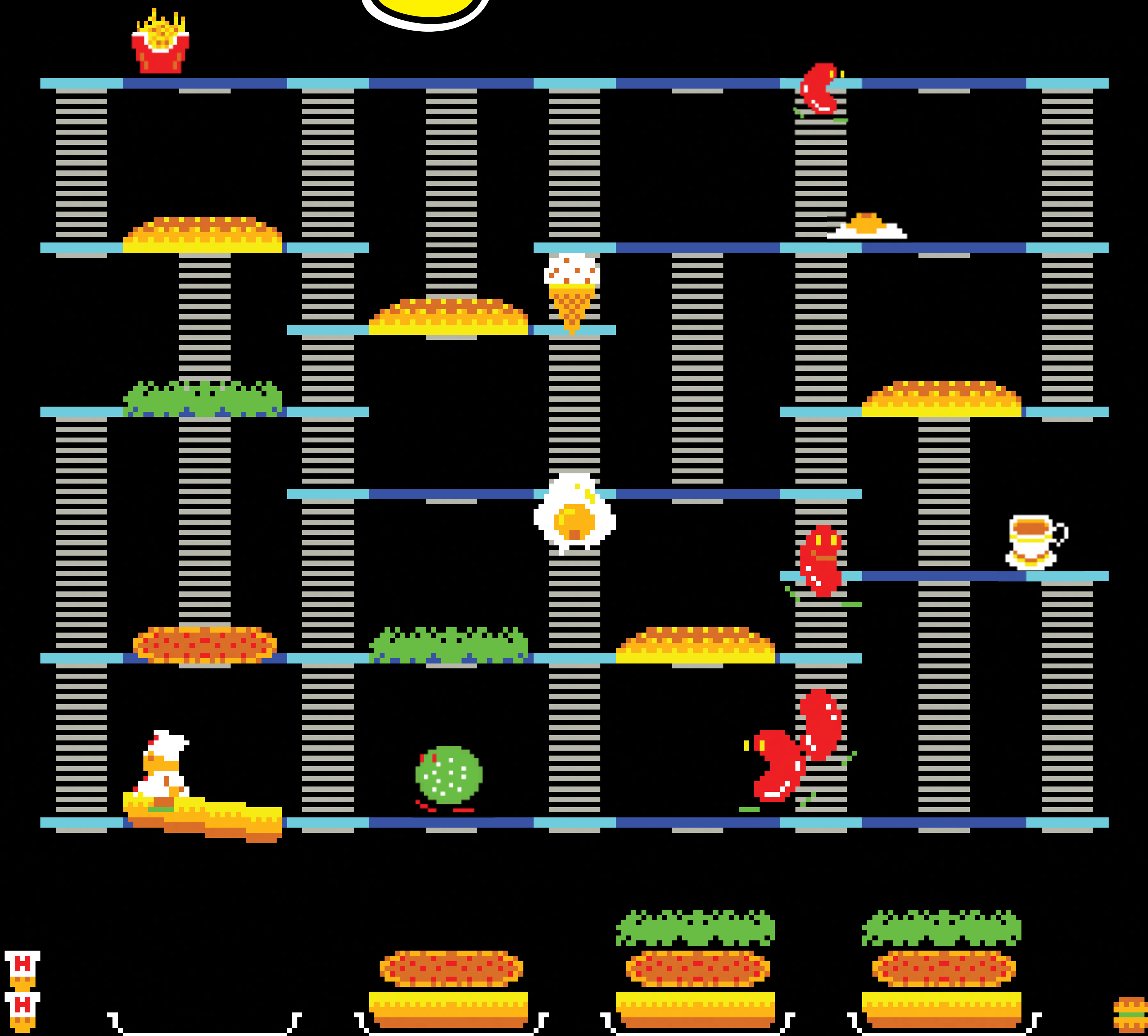
Thirty years from its UK release and the NES is still bringing people together. *



» Before the Wii, the NES was Nintendo's most successful system, with over 60 million units sold.

Many thanks to the National Videogame Arcade, Uemura's translator, Aki, Gemma at juicygamereviews.com and Matt Taylor at bit.ly/1SVZX3t for the photography.

BurgerTime

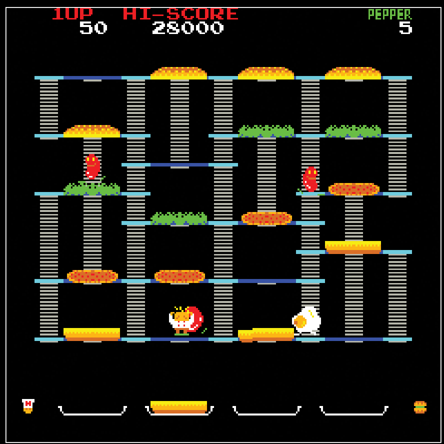




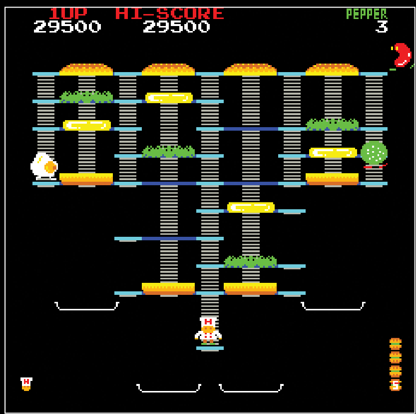
A combination of Donkey Kong and the fast food explosion of the Eighties, BurgerTime hit arcades in 1982 and gave hungry gamers the chance to try their hand at high-pressure short-order burger-flipping. Let's get cookin'!

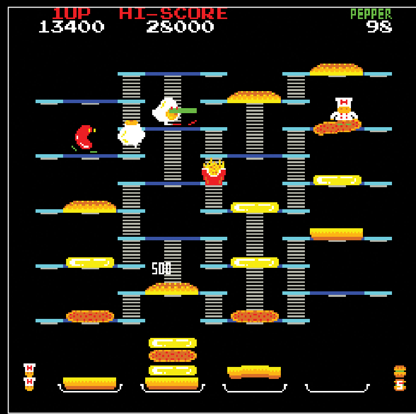
Anyone who stepped into an Eighties arcade will freely tell you one thing about the games that resided there: they were hard as nails. These were machines designed to remorselessly extract every spare piece of change from a teenager's pocket, and welcome them into a world of bright colours and frustrating, 'just-one-more-go'-style gameplay. The toughest games would have you in tears, distraught for not getting past that boss at the umpteenth attempt. They'd have you on your knees as your avatar bit the dust time and time again, smote repeatedly by a grossly unfair random bullet or missile. Some games frustrated you. Some games drove you mad. And then there was *BurgerTime*.

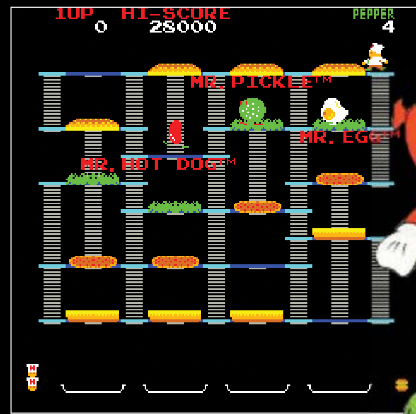
Strangely, *BurgerTime* (originally titled *Hamburger*) was not created in the pits of Hell, but in the offices of arcade giant Data East. The game used Data East's proprietary and interchangeable Deco Cassette system and came on a simple audio cassette, which was loaded into a base cabinet by the machine's owner. The system was notorious on two counts: the unreliability of the audio cassettes (and the fact they had to be 'loaded'



» [Arcade] Chef Pepper gets caught by a Mr. Hot Dog.









DEVELOPER Q&A

We talk to Ray Kaestner, programmer of the superb Intellivision version of BurgerTime



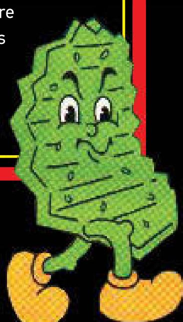
Were you familiar with the arcade game?
Not initially, since it was developed in Japan and at the time it didn't have much of a following in the US. When I got the assignment I had a crash course in it. We had no access to the original code, not that it would have done us much good, since the architecture would have been so different to the Intellivision.

How did you prepare for the conversion job?
By playing the game a lot and getting familiar with the different screens and motions of the enemies. Some of the other Intellivision coders played it a lot and got proficient at it so I got a good chance to observe the game without worrying about surviving.

Any big issues during development?
The screen resolution for the Intellivision is much lower than that of the arcade game, so making mazes that captured the mechanics of the original made the job interesting. We had to make compromises, like only on the first screen can you see the full burgers at the bottom of the screen, and even then we didn't show some ingredients in order to save screen real estate. Other than that, just things like the Intellivision being limited to eight moving objects, so the animation of the dropping burger pieces had to be done in the background. I was concerned it wouldn't looked smooth enough, but it turned out okay. Plus we were under time pressure, I started work on the game in September, and was scheduled to get married in December! Fortunately I got off to a good start and finished the main programming a month before my wedding day, which left plenty of time for tuning and testing.

How well do you think you did?
I was very pleased. The extra time for tuning made a huge difference and Karen Nugent did a great job on the graphics and character animations. Bill Goodrich also did well translating the music and sounds. Mattel was pleased, too – it invested heavily in the game with advertising. And it was successful, which was very satisfying.

What was it like working for Mattel and what role did *BurgerTime* play in your career there?
Mattel was my first job out of college and I learned much there about software architecture and development. The constraints we were working with then taught us to be very efficient in how we wrote software and also gave us focus on simple but fun gameplay. And working on *BurgerTime* gave me opportunities to work on more fun projects at Mattel such as the *Masters Of The Universe* game and the Intellivision III Master Component.

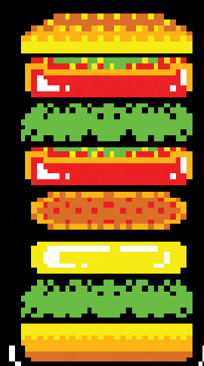


"Despite its difficulty, BurgerTime proved to be very popular in arcades"



up every morning) and, most notably, the difficulty level of the games that used the system. Later versions of the game came on its own dedicated arcade board.

BurgerTime throws the player into the heated cauldron of a fast food restaurant kitchen. Your name is Chef Peter Pepper, and the object is to create copious amounts of juicy burgers for a mass of hungry customers. This is no ordinary kitchen, however. Many of Chef Pepper's ingredients have come to life and are stalking him as he goes about his work. One touch from a Mr. Hot Dog, Mr. Egg or Mr. Pickle will put the hard-working cook on his arse and one of his three lives is lost. The parts of the burgers themselves are spread around a selection of nefariously-designed mazes. Chef Pepper must negotiate his way around, avoiding the deadly enemies and 'walking over' the ingredients. These will then fall to the level underneath, knocking down any items laying directly below. When all the ingredients are formed at the bottom of the screen





» [Arcade] Data East kindly reveals the best ways to score points during play.



» [Arcade] There are useful tips in the attract mode.



and the burgers are complete, Chef Pepper allows himself a little celebratory dance before it's off to the next level and more baying, hungry customers.

In essence, *BurgerTime* is ridiculously simple. There are no power-ups and Chef Pepper cannot jump. In fact, all he has to defend himself is a pepper shaker, a quick dash of which temporarily stuns the pesky hostile foodstuffs. Enemies can also be taken out (again temporarily) by dropping ingredients on them or walking over an ingredient with an enemy on it. The latter yields an extra bonus and is the best way to rack up a decent score. Once all the burger patties, tomato and lettuce have dropped to the bottom of the screen, the burgers are ready and it's off to the next level. Each screen looks deceptively easy, with some requiring many burgers to be made, others containing multiple dead ends and choke points where it's easy for a careless Chef Pepper to get trapped by two enemies. Bonus items, either a cup of coffee, fries or ice cream cone will appear periodically. Snare one of these and Chef gets an extra pepper. But there's little respite as any vanquished enemies soon return to the fray.

Like many of its arcade peers, *BurgerTime* has no actual ending; instead the game just loops around the same set of screens. However, while the number of enemies remains fairly constant, their speed does not. From around level 12 onwards, Mr. Egg, Hot Dog and Pickle gain fractional extra pace until by level 22 they are beginning to outpace the rotund cook. Any player who can negotiate level 25 onwards with the food running amok at great rapidity, deserves the greatest of respect.

Yet despite its difficulty, *BurgerTime* proved to be very popular in arcades. The US and European versions were licensed by Bally Midway and identical to Data East's save a few changes to the game cabinet, and both upright and cocktail



» For the home versions, Mattel employed an extensive advertising campaign.



» An advert for the NES version of the game.

BEAT BURGERTIME



TAKE OUT THE TOP BUNS

■ Unless you happen to be passing them, it's a good idea to ignore the burger fillings that are scattered around and head for the top buns. Taking these out knocks down all the ingredients below them and saves a hefty amount of time.



TREASURE THAT PEPPER

■ Unlike in most restaurant kitchens, pepper is in very short supply. Only use it when you have to, such as when you are stuck between two enemies or in a tight corner. Make a beeline for the bonus items as they give you an extra pepper.



WATCH OUT FOR DEAD ENDS

■ Many of the levels contain burgers to the extreme left and right, and often these have no ladders on their far platforms. When knocking down these items, make sure you are well clear of enemies that could potentially trap you.



PRACTICE THE LADDER/PLATFORM TRANSITION

■ Chef Pepper isn't the nimblest of arcade heroes and he transfers from ladders to platforms rather clumsily. Practicing leaving the ladders at just the right moment can save vital seconds and space.



WATCH FOR THE CHOKE POINTS

■ While the earlier levels offer plenty of escape routes, many of the latter ones contain single ladders in and out of areas that can often see Chef Pepper trapped. And don't forget there are extra points for downing ingredients with an enemy on them.



PATIENCE, DON'T PANIC AND HAVE LOTS OF 10P PIECES

■ OK, so the last point is only relevant if its 1983 – but the others still apply. A direct route may not be possible so bide your time, wander the maze and stay calm. These burgers won't make themselves!

CONVERSION CAPERS



APPLE II

■ The buns may look like they've been doused in icing sugar, yet this is a credible port of *BurgerTime*. Pepper moves around the screen smoothly and the Mr. Hot Dogs have gained a creepy set of white eyes. There's also no sign of that damn tune – which is always a bonus.

ATARI 2600

■ Produced by Mattel's M Network, this version is hardly the most advanced graphically, although there's a fairly decent stab at recreating Mr. Hot Dog and the main character. Pepper himself seems to struggle a bit up the ladders. Maybe he needs to lay off the junk food…





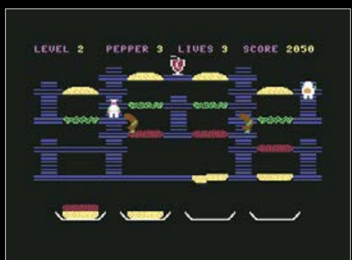
COLECOVISION

■ An incredibly faithful version of the arcade original. Everything is all present and correct from the food-based enemies to level design and (ugh) that incessant melody. Without doubt one of the best home console versions and some delicious-looking burgers!

NES

■ Another solid port that doesn't add anything new to the template (despite being released several years after the original) but does its job very efficiently. All the sound effects, graphics and gameplay are pretty much as per the original arcade game.



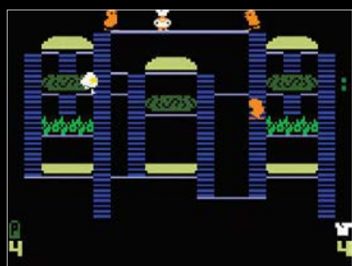


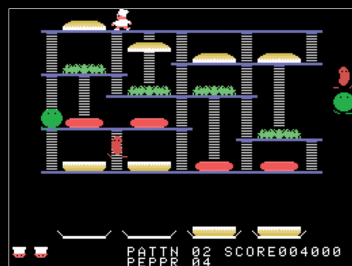
COMMODORE 64

■ Well, this *is* cheeky. Arcade clones were not rare, of course, but at least the majority of publishers normally changed the name. Some sources reckon this is genuine, but we reckon not, given it was published in 1984 by UK's Interceptor Micros and fails to namecheck Data East anywhere. It isn't much cop.

INTELLIVISION

■ Not only an excellent conversion of *BurgerTime* by Ray Kaestner, but also one of the bestselling games on the Mattel console. Despite a (necessary) squashed screen it retains most of the original's charm and playability. Pepper transfers between ladders with less precision, making it a slice easier when the action heats up.



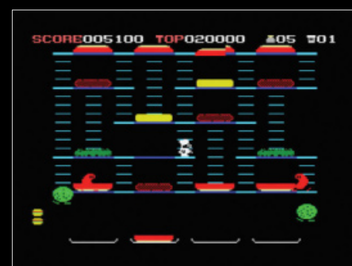


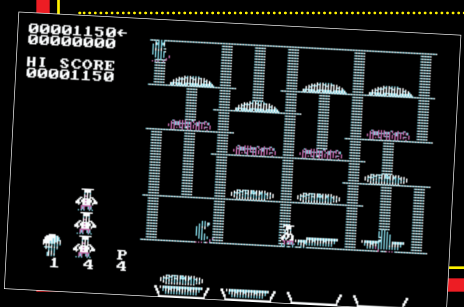
T1-99/4A

■ The Texas Instruments computer has another credible conversion of *BurgerTime* despite a number of elements from the original being absent. The graphics are smart, the sound accurate and only a few minor gameplay complaints, such as being unable to throw pepper while moving, mark against it.

MSX

■ *BurgerTime*'s simplistic aesthetics and gameplay certainly helped when it came to home conversions and this MSX port is another decent effort. Chef Pepper himself has had something of a makeover, but otherwise the sprites are excellent and the ingredients even offer a neat little bounce as they fall down.





PC-DOS

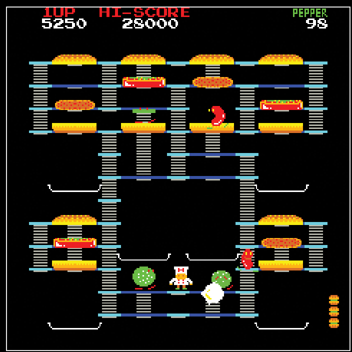
■ Opinion again seems divided on whether this is an official conversion of *BurgerTime* or not, but given it's by Mattel and mentions Data East on the title page, we reckon so. It has horrible CGA graphics, but is actually a very competent and enjoyable version, it's even slightly easier than the arcade original.



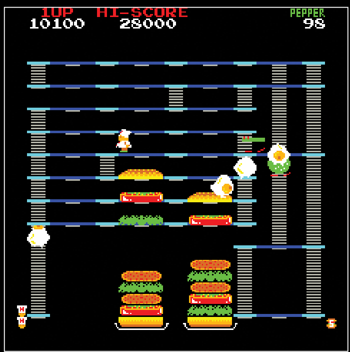
MATTEL AQUARIUS

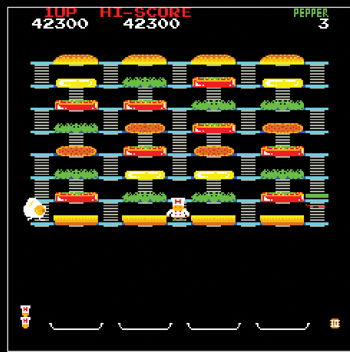
■ This is a colourful conversion with all the burger elements adequately represented. The game does play jerkily, however, and the Mr. Hot Dogs and Mr. Pickles have been transformed into rather odd-looking stick men. The sound effects are suitably crunchy although the annoying tune is also present.



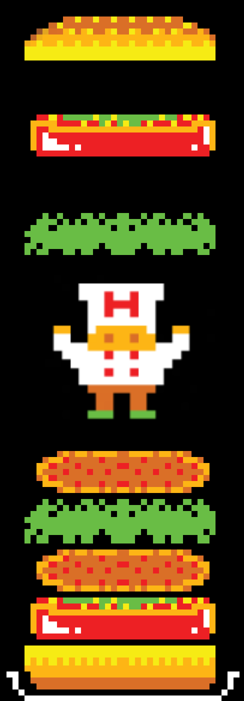


> "With imitation being the sincerest form of flattery, many clones were released on home computers"





» [Arcade] Just look at the size of that thing!



versions were released. Home ports were inevitable, and the game saw action on a range of systems including the Mattel Intellivision, Atari 2600 and ColecoVision. And with imitation being the sincerest form of flattery, many clones such as Ocean's *Mr. Wimpy* and Blaby's *Barmy Burgers* were released on home computers. The official validity of Interceptor Micros' *Burger Time* remains in doubt, but given the lack of any other authorised conversions from the Hampshire software house, it seems an unlikely genuine licence.

Arcade spin-offs and sequels also appeared. In 1984, Data East released *Peter Pepper's Ice Cream Factory*, in which the kitchen hero has now graduated into his own eponymous business. Instead of burgers, Pepper must kick ice cream into waiting cones, and as you might expect there is another range of food-based enemies out to hinder him. While he cannot shake pepper, Peter now has the ability to haphazardly jump around, although he clambers up ladders with all the sluggishness of his *BurgerTime* incarnation.

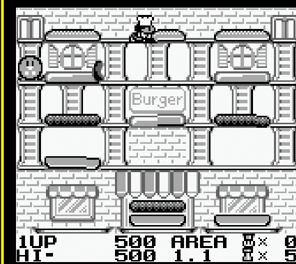
BurgerTime received an arcade update proper in 1990 with *Super BurgerTime*. Clearly influenced by smash arcade games such as *Bubble Bobble* and *Rainbow Islands*, *Super BurgerTime* was as massive a step-up in gameplay and presentation, as you might expect given the eight-year gap. Apart from its cute graphics, Peter Pepper now moves considerably nippier than his arthritic forebear and many of the levels take place over more than one screen. There is also a range of bonus weapons that can help Pepper dispatch any menacing baddies, which partially offsets the fact the ingredients must now be jumped on three times, making that process a little trickier. Most likely due to the success of the Intellivision port, *BurgerTime* also received an exclusive sequel on the Mattel console called *Diner*, which attempted to merge the format with an isometric-style viewpoint.

Today, *BurgerTime* remains a bit of an oddity. Brutally difficult, yet original and compelling, its gameplay will endear it to few modern gamers. For an oft-touted forgotten title in the history of arcade games, it's received many updates over the years, going some way to dispel that belief. Chef Peter Pepper himself has made his mark too, featuring in the movies *Wreck-It Ralph* and *Pixels*, and one thing is for sure: whether you're an Eighties veteran or current-gen newbie, it's still hot in Chef Pepper's kitchen. ✱





SEQUELS



BURGERTIME DELUXE

■ Originally released on the Game Boy, and now available on 3DS (via Virtual Console), mobile and PC, this – as the name suggests – is an upgrade of the original arcade game. Except it's not, really – it's just the same game with new music and levels. The screen is predictably cramped, but Pepper moves smartly and it retains much of the original's charm.



THE FLINTSTONES: BURGERTIME IN BEDROCK

■ Another Game Boy release, this time for the Game Boy Color. Wedded to the popular Hanna-Barbera cartoon, it's an upgraded port of *BurgerTime Deluxe* with *Flintstones* sprites replacing the originals. It does, however, have some additions such as power-ups (invincibility and speed, for example) and scrolling levels.



PETER PEPPER'S ICE CREAM FACTORY

■ This (sort of) follow-up retains the one-screen format of the original but it is different mechanically. Pepper, having graduated to deserts, must now kick ice cream scoops somewhat improbably into their cones, but the main character moves too sluggishly for the game to be a genuine contender.



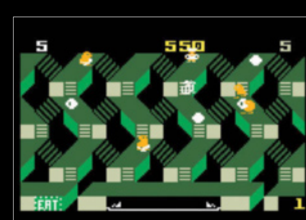
SUPER BURGERTIME

■ Released in arcades seven years after the original, *Super BurgerTime* is essentially *BurgerTime* given the *Bubble Bobble* or *Rainbow Islands* treatment, including a two-player mode. Multiple lands, power-ups and the ability to jump make it much more accessible than the original game – be warned, though, the game is still a tough cookie on later levels.



BURGERTIME WORLD TOUR

2011's revamp of the classic arcade game received mixed reviews, and it's easy to see why. The original's hook was its simplicity, and by yanking the game into 3D, much of that disappeared. Unfair deaths due to an errant camera and poor collision detection don't help making the game a very frustrating experience. This one is for hardcore *BurgerTime* fans only.



DINER

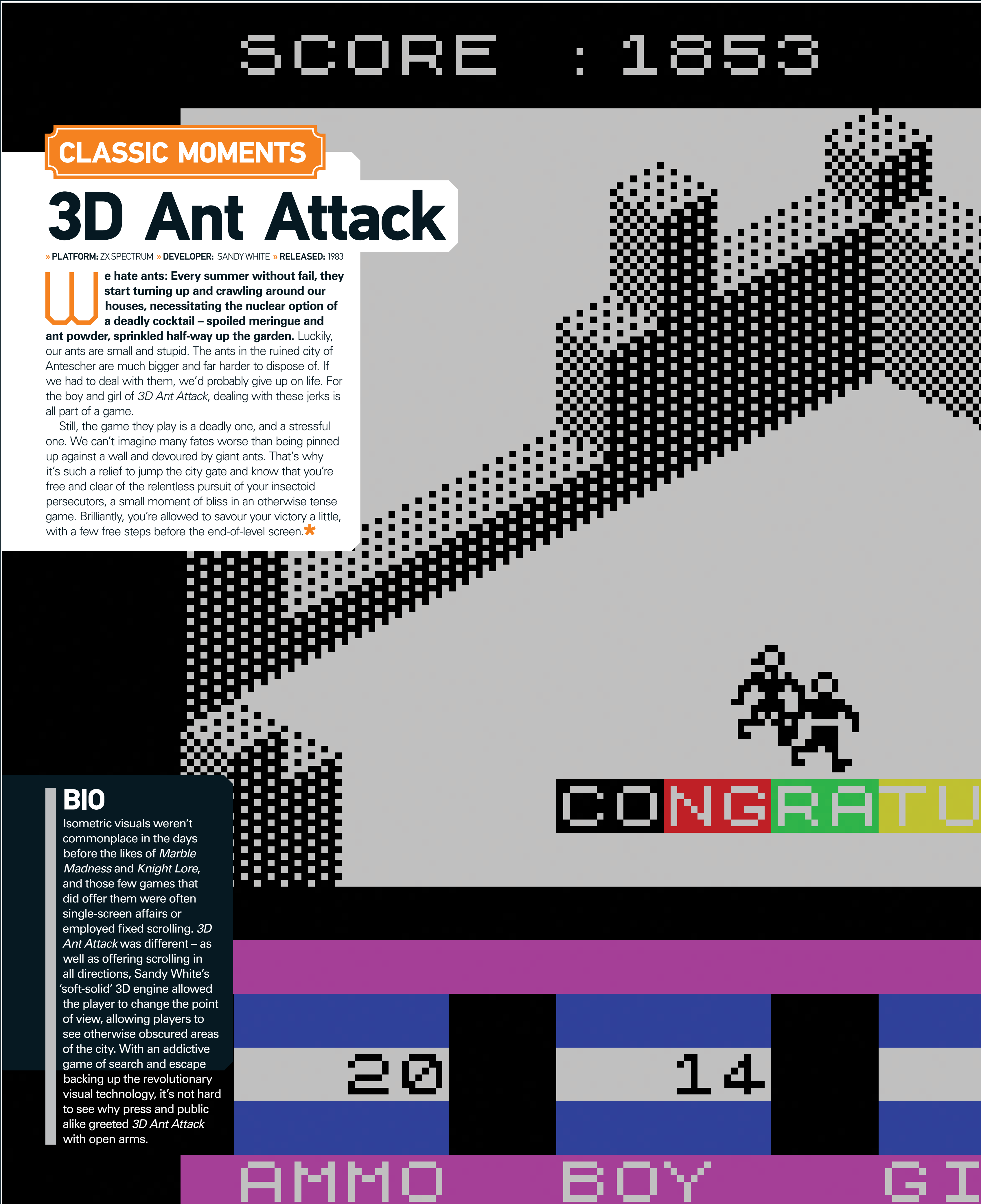
■ For the Intellivision-exclusive follow-up to *BurgerTime*, INTV took the reins and Ray Kaestner was called upon once more to code the game. This is an interesting take on the *BurgerTime* formula, but the isometric 3D effect doesn't really work with the gameplay and it just ends up being frustrating as a result. Like *World Tour*, it's for the devout *BurgerTime* fan.

3D Ant Attack

» **PLATFORM:** ZX SPECTRUM » **DEVELOPER:** SANDY WHITE » **RELEASED:** 1983

We hate ants: Every summer without fail, they start turning up and crawling around our houses, necessitating the nuclear option of a deadly cocktail – spoiled meringue and ant powder, sprinkled half-way up the garden. Luckily, our ants are small and stupid. The ants in the ruined city of Antescher are much bigger and far harder to dispose of. If we had to deal with them, we'd probably give up on life. For the boy and girl of *3D Ant Attack*, dealing with these jerks is all part of a game.

Still, the game they play is a deadly one, and a stressful one. We can't imagine many fates worse than being pinned up against a wall and devoured by giant ants. That's why it's such a relief to jump the city gate and know that you're free and clear of the relentless pursuit of your insectoid persecutors, a small moment of bliss in an otherwise tense game. Brilliantly, you're allowed to savour your victory a little, with a few free steps before the end-of-level screen.*



BIO

Isometric visuals weren't commonplace in the days before the likes of *Marble Madness* and *Knight Lore*, and those few games that did offer them were often single-screen affairs or employed fixed scrolling. *3D Ant Attack* was different – as well as offering scrolling in all directions, Sandy White's 'soft-solid' 3D engine allowed the player to change the point of view, allowing players to see otherwise obscured areas of the city. With an addictive game of search and escape backing up the revolutionary visual technology, it's not hard to see why press and public alike greeted *3D Ant Attack* with open arms.



MORE CLASSIC 3D ANT ATTACK MOMENTS

Making A Connection



The turning point of every level is finding your partner. Once you've tracked them down with the scanner, which is surprisingly useful given that it's only a binary indicator of moving closer or not moving closer, the game turns from a game of hide-and-seek to a dangerous escape. Having a partner to protect makes survival much more difficult…

The Barbarians At The Gate



When you're on the high ground, you're safe. The ants aren't going to get you, and you can use your vantage point to look for ways out. But there's a time limit to be mindful of, and realistically you're never going to have a free run to the city gate. It's time to steel yourself, throw caution to the wind, jump from the high ground and run for your life!

Come And Have A Go



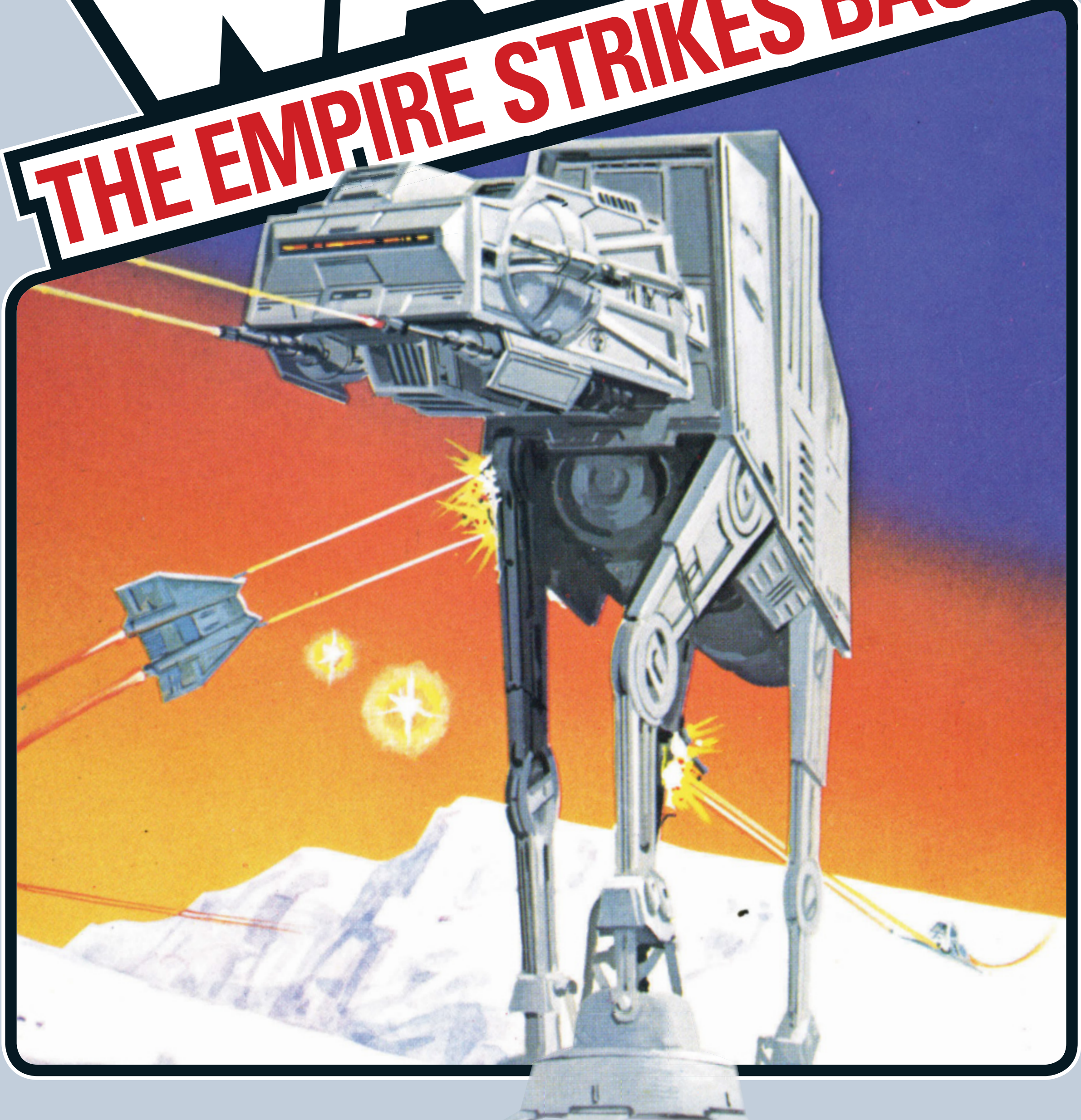
In an age where games are all too eager to hold your hand, it's refreshing to go back to a time when a game wasn't afraid to taunt you a bit. You'll receive messages from the developer between each level, and even the, "Have another go!" and, "Ready when you are!" messages are a laced with a confrontational attitude.

The Wrong Kind Of Bug



For a game full of oversized ants, it's pretty amusing that the biggest bug is actually a camera glitch. Falling from a platform can leave your viewpoint off-centre, to the point that you can no longer see the boy or girl you're controlling! The only thing left to do is reach for the '1' key and have another go.

STAR WARS: THE EMPIRE STRIKES BACK



Parker Brothers' entry into videogames in the early Eighties saw seasoned designer Sam Kjellman partnered with newly-hired coder Rex Bradford. Sam and Rex tell Rory Milne how they brought the Battle of Hoth to the Atari 2600



» [Atari 2600] It's tricky to pull off, but blasting a smart bomb out of the sky is extremely satisfying.

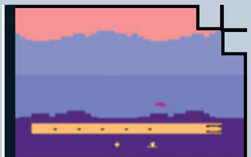
In some respects, University Of Massachusetts graduate Rex Bradford secured his position in Parker Brothers' videogame group by being in the right place at the right time. But getting to that right place involved a childhood of playing board games and extensively coding at university. "As a kid, I played *Risk* and other board games. And I tried to invent my own," Rex explains. "So after learning how to program computers while working at UMass, I saw in the Boston Globe an ad for a job programming electronic games at Parker Brothers. I sent in a resume and was ecstatic to get a call. I drove out to Beverly with a two-foot tall stack of printouts of the code and documentation for every program I had ever written, and was basically hired on the spot. There was definitely a clash of cultures at the Beverly corporate office. It was a pretty 'Yankee' company with people dressed in very nice suits, and then the fourth floor was invaded by programmers in blue jeans."

Although he was hired to develop electronic games, Rex soon found himself transferred to Parker's newly-approved videogames division, which had been tasked with understanding how the Atari 2600 worked. "My first project was an electronic *Monopoly* game. I completed the prototype right around the time that the videogame go-ahead happened, and so then transitioned into working with Jim McGinnis and Mark Lesser to determine how the 2600 was programmed. Mark and Jim – our manager – did the hardware-level reverse engineering. The 2600's zany graphics chip was the key thing there. My first contribution was to write a disassembler for already-published cartridges. When analysis of the circuitry presented ideas for how the sprites and background worked, I wrote small test programs on the 2600 to verify our assumptions. With these combined efforts, we figured out how everything worked in a few months."

While Rex and his colleagues got to know the 2600, Parker's marketing department out-pitched Atari to acquire the lucrative *Empire Strikes Back* videogame licence, the design of which was entrusted to longtime Parker designer Sam Kjellman. "It was an easy sell because Parker's marketing muscle demonstrated that the licence would be a great moneymaker for Lucasfilm," Sam remembers. "Parker Brothers had momentum in the electronic game arena; the company was not limited to paper and plastic games. It was a big factor that Parker committed to publish its titles across all viable platforms, and it had a long history of successfully licensing properties for all kinds of games. Parker's product development was atypical of game companies but typical of marketing-driven consumer products companies. I was selected at Parker because I was on the creative side and had experience with handheld games. I had a keen interest in computer technology and was motivated to read and learn how these devices worked."

Parker's marketing-driven approach resulted in a decision to base its *Empire* game around the movie's iconic Hoth battle scene, but Sam also cites a classic coin-op as influencing the design. "Marketing considered at the outset how to promote the product on TV. Hoth was a unique and visually-stunning scene from the movie. It also was a real departure, because in most games you were shooting many small attackers. In the Hoth scene, you had many Rebellion fighters taking down these huge Imperial walkers. In the end, the Hoth scene was chosen for its overall market appeal. *Defender* was out there and was an influence. But we worked to capture the essence of the scene; that was the main objective. We designed the game from still graphics, posters and from the scene. I used ▶

"We worked to capture the essence of the [Battle Of Hoth] scene; that was the main objective"
Sam Kjellman



IN THE KNOW

» **PUBLISHER:** Parker Brothers
» **DEVELOPERS:** Sam Kjellman and Rex Bradford
» **RELEASED:** 1982
» **PLATFORM:** Atari 2600, Intellivision
» **PLATFORM:** Shoot-'em-up

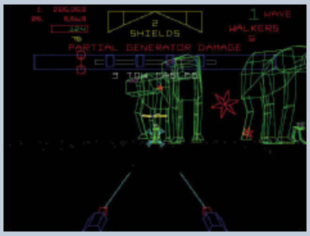
STAR WARS: THE EMPIRE STRIKES BACK 101

■ In keeping with the movie scene that inspired its design, the challenge of *Empire Strikes Back* is to take a high-velocity snowspeeder into battle against far bigger, far more powerful, Imperial walkers. The game's enduring appeal lies in mastering the agile rebel craft and achieving absolute accuracy with its laser weaponry.



THE BATTLES OF HOTH

More Star Wars games featuring the iconic film sequence



The Empire Strikes Back

» Platform: Arcade **» Year:** 1985

For a first-person vector shooter, Atari's coin-op recreates the Battle Of Hoth pretty accurately. There's no representation of Luke surviving his snowspeeder getting shot down, but you are given limited tow cables to launch at the legs of the AT-ATs, in addition to being able to target their vulnerable cockpits.

The Empire Strikes Back

» Platform: NES **» Year:** 1991

The second stage of the NES version of *Empire Strikes Back* is essentially an enhanced version of Parker's 2600 shooter. But the NES title adapts more aspects of the classic scene, so you can rope the legs of the AT-ATs and have Luke plant explosives on a walker if his Snowspeeder is downed.





Super Empire Strikes Back

» Platform: SNES **» Year:** 1993

The Battle Of Hoth section of this SNES run-and-gun plays out in an into-the-screen format. The Mode 7 battle involves shooting down quotas of probes, jet bike-riding stormtroopers and AT-ST's, but its dramatic climax tasks you with roping the legs of AT-ATs and circling them until they drop.

Shadows Of The Empire

» Platform: N64 **» Year:** 1996

Arguably the most memorable part of this N64 launch title, *Shadows Of The Empire*'s Hoth battle boasts intuitive radar and power-bar mechanics as well as responsive flight controls. *Shadow*'s visually-stunning Hoth assault combines blasting at probes and AT-STs, and roping and dropping AT-ATs.

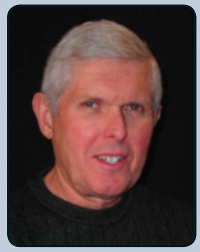




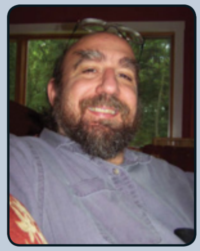
Rogue Squadron

» Platform: PC **» Year:** 1998

Only playable after acing all the game's other missions, *Rogue Squadron*'s Hoth level feels more immersive than *Shadows Of The Empire*'s, thanks to audio feedback from the rebel forces and a more expansive world. *Rogue Squadrons*'s probes and AT-STs have much lower hit points than *SOTE*'s, but its AT-ATs are just as tricky to take down.



» Sam Kjellman cocreated the board game *Bux* and he has various other patents to his name.



» Rex Bradford was active in games development until 2010 and is now an independent website developer.

▶ gridded paper, initially, so that I could count pixels and make sketches. The next step was to create a storyboard to present to marketing. A long panel had the background, and cut-outs were pasted for the walkers and fighter as well as the base at the far right side. There was a high level of urgency to get the game programmed and released. But additional suggestions were constantly coming, mostly from marketing. They were pushing to get as many features as possible. Once the storyboards were approved, Rex and I were dug in to get it done. From the storyboards, I created cut-outs that had the pixel data for the animations. The pixel data was then picked up by Rex to animate."

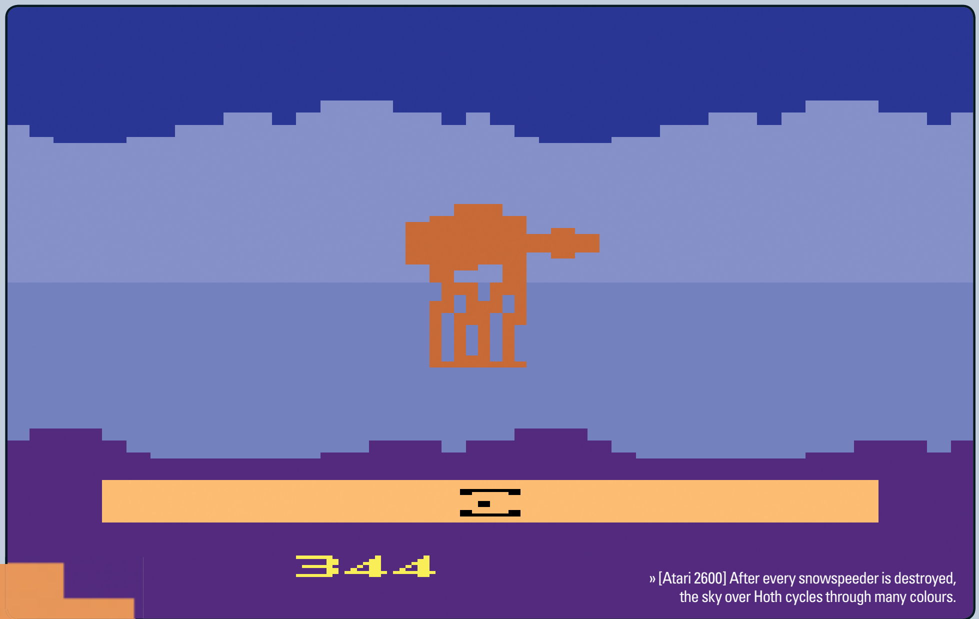
With the foundations for *Empire Strikes Back* laid, Rex joined Sam on the game's development and hit the ground running. "Empire was not only my first videogame, it was also my first assembly language program. It was a baptism of fire. Every morning I printed out the program – it wasn't that long, really – and every evening I printed out another copy to take home and pore over at night. It took about five months start to finish, and I don't think I did much of anything else during those months but work on that game. Sam and I worked closely together in the same building and he was playing iterations of the game regularly. As well as being in charge of the game design, he did the graphics for the walkers and perhaps the snowspeeder as well, though the smaller sprites were so simple that they were often done by programmers. The basic scene of 'snowspeeder versus walker' was decided before I got on the project. But the details of the game were definitely worked out on the fly. For example, while the vulnerable 'sweet spot' on the walkers was part of the design early on, the idea of it launching a smart bomb that chases you came up much later."

On the origins of the walkers' vulnerable bomb hatches, Sam reveals their inspiration was another famous piece of *Star Wars* tech. "They made the game more dynamic because a great shooter could do better in the game. Jim McGinnis was the inspiration for that feature, and marketing jumped all over it because of the idea of the Death Star vulnerability."

Parker's marketing department was also excited about roping walkers, which landed Rex with the unenviable task of explaining memory constraints. "This was something the marketing folks were quite adamant about, and I defused one tense meeting by stating that I would write the basic game first and then we would see if we could fit it in later. It never got done, obviously. The sprites were already in use and it would have been pretty tough to do any sort of horizontal rope graphic with missiles. And we didn't have any room in the ROM for animations of walkers falling over."



» [Atari 2600] Seconds after hitting a AT-AT's bomb hatch, a snowspeeder flees from the resultant explosion.



» [Atari 2600] After every snowspeeder is destroyed, the sky over Hoth cycles through many colours.

Beyond fielding feature requests, Rex also implemented and fine-tuned *Empire*'s impressive sensation of speed and parallax scrolling backdrops. "The camera and parallax was something I took to and honed myself with feedback from others. I believe it was Jim McGinnis who first suggested the parallax motion of foreground and background. The camera was something I owned and played around with a lot, trying different ideas for the camera behaviour as well as tuning camera and snowspeeder velocities."

But Rex's hard work on *Empire*'s mechanics failed to impress Parker's marketing department, and it was only by accident that he subsequently gained unanimous approval for the game. "I thought the game was pretty good, but the marketing people were not impressed. So I put in the basic sound effects for missile firing, explosions, and so on. The next day, people came to me saying: 'This game is awesome, what did you do to it?' They hadn't realised that the only change was the addition of sound effects. The theme song for the Force was a nice addition to the game; one that I remember Jim McGinnis may have suggested was possible and helped me a bit with."

Meanwhile, Sam devised gameplay enhancements such as missile collisions, snowspeeder repairs and representing damage with colour changes, which Rex is still rightly impressed by. "Obviously if it takes 48 hits to kill a walker, there had better be visual progress feedback, and doing it with the sprite graphics was impractical in a 4K cart. The 'land to repair' mechanism was a great idea also because the walkers are still shooting at you and so it increases the sense of panic that was part of the feel of the game. Making sure missile collisions exploded the missiles gave daring players with a quick thumb a chance to hang out in front of a walker for a bit and blast away, with decent odds of taking out their missiles with their own."

After realising Sam's final gameplay ideas on-screen and helping to playtest the game, a final hurdle awaited Rex. "I flew out to California with one of the Parker managers to show Lucasarts the game. We met with Ed Catmull and some of the other graphics gurus who had created the graphics for *Star Wars*. They were very nice, and understood the limitations of the 2600 and thought the game was good. There were no changes requested. As I remember it, after their approval it just went into a box and into stores."

Empire Strikes Back was officially launched at the 1982 New York Toy Fair, including a video presentation in a small purpose-built cinema. Rex remembers the fair but didn't attend. "I didn't go to the Toy Fair unveiling, though I was aware of it. Parker obviously did a great job with the launch, and the white hotness of the *Star Wars* theme and licence obviously was key to the game's success. But I was still very proud of what Sam and I did with help from a few others."

Sam doesn't offer changes to *Empire* when asked if he would make any. "We made all the changes that we could at the time working with a very limited machine. The combination of a mega-hit movie and a mega-hit videogame console produced a commercial success that was as great as anyone could wish for."

Rex has a few ideas for minor improvements, but his final words underline his pride for his first videogame. "I would try to get the power generator ending sequence in, see if I could achieve single-line resolution with the snowspeeder. Beyond that, I think the game was pretty sweet. It was fun to be there near the dawn of the videogame era. The games are incredible now, but it was fun to create them in the early days, with just some simple tools and a blank screen beckoning." *

Many thanks to Sam and Rex for revisiting Hoth.

ATTACK OF THE CLONES

Other arcade-influenced Atari 2600 titles



Mouse Trap

Essentially *Pac-Man* with cheese, bones, cats and a mouse – instead of dots, power-pills, ghosts and the titular yellow guy, *Mouse Trap* also boasts rotating doors and power-ups that can be saved rather than used immediately. As well as these additions, *Mouse Trap* is notable for its slick presentation and tight controls.



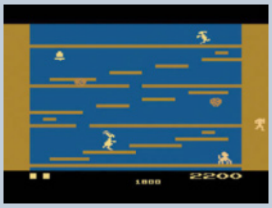
Demon Attack

Without reinventing the wheel, *Demon Attack* subtly tweaks the basic fixed shooter formula. Imagic's title takes its lead from the popular coin-op *Phoenix*, except that firing directly under the game's agile demons is generally futile and often lethal. So the game's uniqueness lies in targeting where your enemies are going to be next.



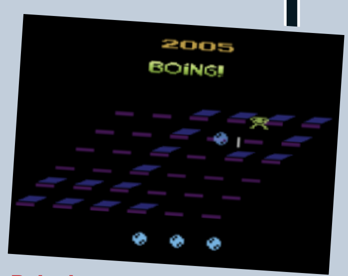
Chopper Command

Activision's 2600 output was consistently good and *Chopper Command* upholds this reputation. The game riffs on *Defender* but replaces its alien invasion with desert dogfights. Activision's title lacks a mutant equivalent, but its air force antagonists shoot up and down simultaneously and they demand genuine skill to dispatch.



Kangaroo

Ported from a Sun Electronics coin-op designed to appeal to fans of *Donkey Kong*, *Kangaroo* fulfils its remit while also providing a tougher challenge than its inspiration. Rather than rolling barrels, the game's monkeys rain down fruit from above, but, as compensation, the Kangaroo heroine can punch out her opponents.

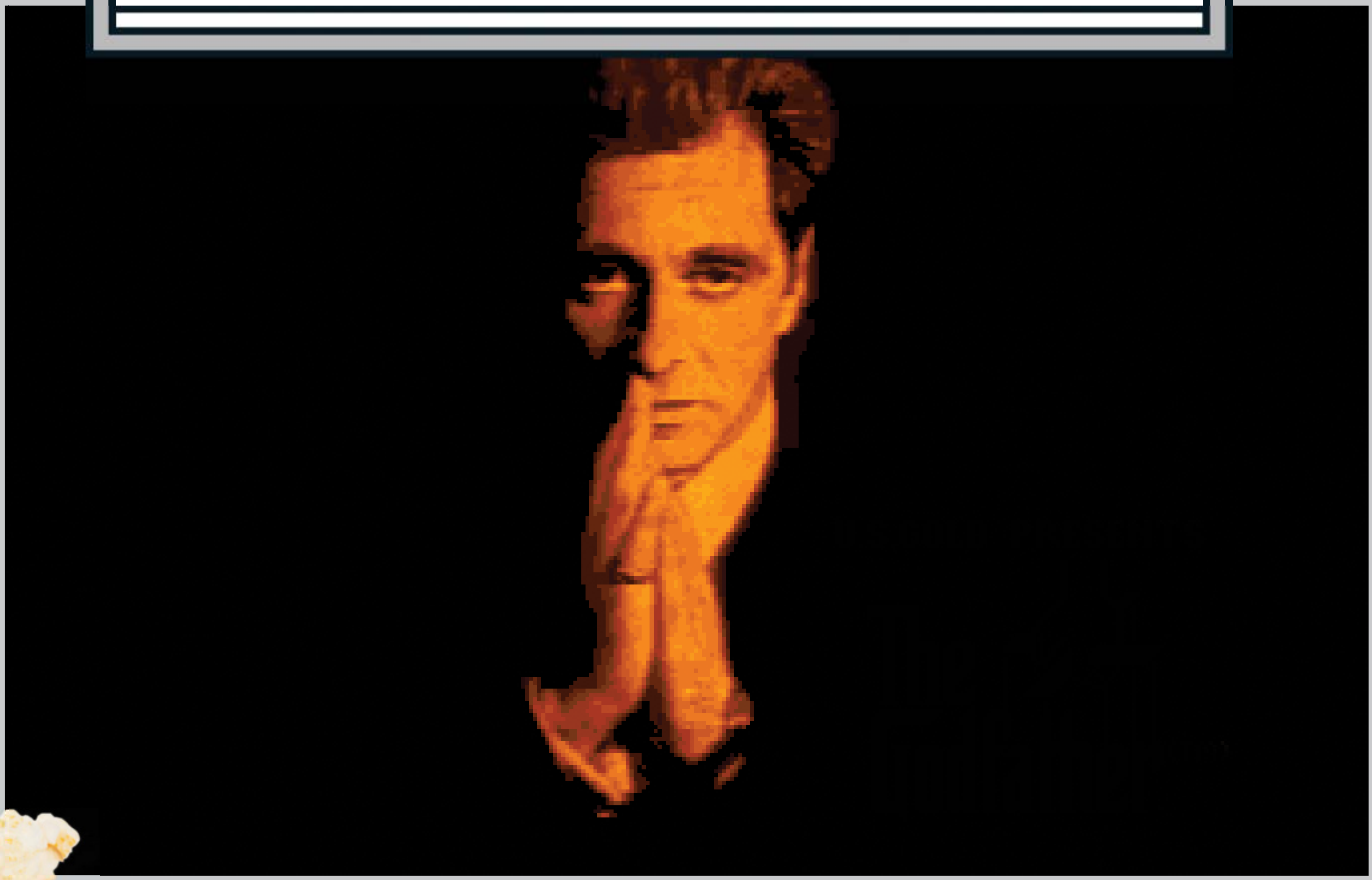


Boing!

A great example of a game that takes the core mechanics of another and adapts them to better suit the host hardware. Basically, *Boing!* takes *Q*bert*'s isometric block bouncing gameplay and applies it to a flatter playfield. Just as importantly, *Boing!* mirrors *Q*bert*'s responsive controls and smooth difficulty curve.

LICENCE TO THRILL

NOW SHOWING: THE GODFATHER



FILM

- » **YEAR:** 1972
- » **STUDIO:** Paramount Pictures
- » **DIRECTOR:** Francis Ford Coppola
- » **STARRING:** Al Pacino, Marlon Brando, James Caan, Robert Duvall, Diane Keaton
- » **BUDGET:** $6-7 MILLION
- » **BOX OFFICE:** $245-286 MILLION

GAME

- » **YEAR:** 1991
- » **PUBLISHER:** US Gold
- » **DEVELOPER:** Creative Materials

How do you go about developing a videogame based on one of the most revered movies ever? Mike Bevan talks to the team behind the first videogame adaptation of the hit classic

Nearly 45 years after its release, Francis Ford Coppola's *The Godfather* remains one of the most memorable and influential movies to come out of Hollywood. Based on Mario Puzo's bestselling novel, it's an intricately-crafted tale of crime, honour, betrayal and brutal mob violence in post-war America. It tells the epic saga of the Corleone family, headed by Marlon Brando's iconic Vito Corleone, and spawned a further two films including an arguably better sequel. While Marlon Brando takes top billing, it's the rise of Michael Corleone (played by Al Pacino) from upstanding war veteran to ruthless mobster that provides the most fascinating story arc throughout the trilogy of films. The character of Michael Corleone proved to be Al Pacino's breakthrough film role, and the movie garnered 11 Oscar nominations, ultimately winning Best Picture, Best Adapted Screenplay, and Best Actor for Marlon Brando. The distinguished film critic Roger Ebert later commented that *The Godfather* "comes closest to being a film everyone agrees is unquestionably great", while even real-life gangsters reportedly took on the philosophising approach of Marlon Brando's Vito Corleone.

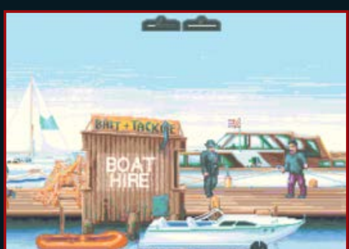
Surprisingly, the rights to a videogame version of the movie or its sequels didn't become available until the early Nineties, shortly after the release of the finale of the series, *The Godfather: Part III*. Coder Tim Cannell remembers how getting the chance to work on the licence was, in its own small way, a little like earning the respect of the Corleone family in the films. "The company I was working for approached publishers and was dealt out whatever ideas or licences the publishing company had recently brought up," he recalls. "The choicest titles were given out to development studios that were currently in favour. Favour was gained and lost based on previous titles worked on for the publisher. Presumably we were in favour with US Gold as I'd imagine that the licence for *The Godfather* was relatively significant for the time."

Tim's company, Creative Materials, had been behind US Gold's well-received conversion of the arcade brawler *Final Fight*, along with a licensed game based on the Tom Cruise racing car flick *Days Of*




» [Amiga] Some of the backdrops wouldn't be amiss in a LucasArts adventure title.

> **"A man who doesn't spend time with his family can never be a real man"**
> Don Vito Corleone



» [Amiga] No, I'm not falling for that fishing boat thing again.


» [Amiga] Look out for drive-by shooters and Mafia grunts with Tommy Guns.

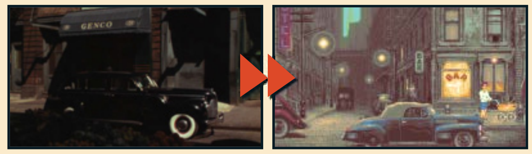
Thunder. However Tim admits that he didn't resonate with the movies at first. "I was not a fan of the film series at the time," he tells us. "I had never watched even the first of the films, even after we had completed the game. Years later I'm a fan of them, but it's more that the films inspired the artwork and storylines."

"I do remember being impressed that we were using Pete Lyon as the artist," Tim continues. "He was somewhat of an industry celebrity at the time and we were all fans of his work. I imagine it was an indication of US Gold's designs for a prestige title that got Pete signed up." Pete had been a pioneering Amiga graphic artist in the Eighties, working on titles like *Goldrunner* and *The Karate Kid: Part II*, and his distinctive artwork would be *The Godfather*'s greatest asset. "I was approached as I had done some successful work and some other film-based games but nothing so famous," Pete recalls. "I sort of took the opportunity in my stride, thinking of the game as almost a distraction from the quality of the movies themselves. Of course I admired the movies, although I much preferred *Apocalypse Now*, and think of *The Conversation* as one of my all-time favourite films."

From the start, the game showcases Pete's stunning graphics with an impressively cinematic sequence featuring the New York skyline, which pans slowly down through several layers of ever more detailed buildings into the streets of Little Italy. At this point, while we think we are still watching an introductory cutscene, players are plunged into the game. At its heart, *The Godfather* is a simplistic shooter where you play out the career of an unnamed Corleone family member from the mid-Forties to the early Eighties. Each of its five levels takes the form of a scrolling action sequence, where you fend off rival mob henchmen, followed by an *Operation Wolf*-style first-person shootout, all set against Pete's incredibly-detailed backdrops. Little touches like flashing neon signs, ▶

MOVIE TO GAME COMPARISON

The game includes moments inspired by all three films in The Godfather trilogy…



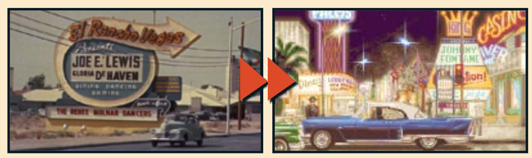
IT'S IN THE DETAILS

The movie begins in 1945, and Coppola's rich detail – from the clothes to the cars and the recreation of post-war America – is stunning. Pete Lyon's graphics capture the atmosphere of Forties Little Italy with impeccable style, far outshining most Nineties film conversions of the time.



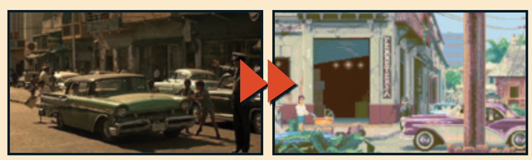
READ ALL ABOUT IT

One recurring storytelling device throughout the movie is the use of newspaper headlines to advance the story. *The Godfather* game also employs this device, complete with a cool spinning effect, to signify events along its timeline and flesh out its admittedly minimal story.



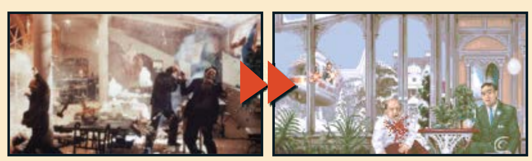
WHAT HAPPENS IN VEGAS

We see the beginnings of Michael Coreleone's Las Vegas gambling empire in the first film, with the family's hotel and casino business being overseen by Fredo Corleone in the decades to come. The game lets us experience the atmospheric neon backdrop of Vegas, circa 1957.



HOLA HAVANA

In *The Godfather: Part II* Michael travels to Cuba planning to further his profiteering there. Unfortunately the trip is a disaster due to a family betrayal and the chaos of Franco's revolution. The game sees us returning to Havana in 1961, in order to settle the family's unfinished business.



DEATH FROM ABOVE

The final scene in the game is inspired by a sequence in *The Godfather: Part III*, where Michael is targeted by a helicopter at a meeting of the Dons in Atlantic City. The game has a similarly gruesome bodycount, and you are tasked with preventing Michael from becoming chopper fodder.



passing overhead trains, animated windows and shutters, and large moving cars of the period (including the occasional drive-by shooting) add to the immersion.

In some respects the game is a small-scale digital epic befitting of the movies that inspired it. "*The Godfather* was very big for its time," Tim explains. "It came on six floppies with no installer, and you went through the disks as you progressed through the game. The vast majority of the size must have been the graphics. Very little was reused, you progressed through the levels and only saw the backgrounds once. The game's design called for significant scenes from all three movies over the long timeframe that the films were set, and the graphics had specific 'looks' of the time that they were based on."



» [Amiga] Mess up and you'll be six feet under.

In designing the game's visuals Pete went to extraordinary lengths to produce an authentic experience for players. "I combed the city library for source material and bought second-hand books if they were pertinent," he reminisces. "New York had always seemed so romantic and featured in its myriad guises as a backdrop in many the films and TV shows I regularly consumed. I watched *Dragnet* avidly as a kid, for example, as well as revisiting the noir thrillers as a student, so the chance to do these graphics was very exciting. I enjoyed that novel feeling of being able to just depict the scenes in an almost cinematic way."

We ask Pete whether US Gold gave any guidelines on how it wanted the game to look. "I was given very little guidance that I recall," he replies. "Just to do a good job and 'make it like the film'. The emphasis was to make it as cinematic as [possible]. The atmosphere and imagery were already familiar. I'd even visited the Hollywood film sets on tours so I was given my druthers and just got on with it. It was probably the first game for which I felt I was being truly artistic…"

"I remember once getting into a bit of an argument on the phone about whether I was scanning the pictures," Pete reveals. "I took the slightly mischievous position that it was the results that mattered and the means

ARTISTIC LICENCE

These weren't in the film…

BREAKING THE CODE

■ Passers-by often get caught in your crossfire, and only killing a large number of them leads to disownment by the family. In the movies no member would be caught dead harming civilians or members of the police force – except for a really corrupt one, perhaps…



FEMALE ASSASSINS?

■ Likewise the idea of a family sending a woman to 'do a man's dirty work' would be morally reprehensible to of any of the films' characters. But this doesn't stop the game throwing dozens of female assassins at you, whether on the sidewalk or while demurely slouched on a chaise lounge.



MEGA YACHT

■ The player travels to 1975 Florida for a shootout among the jetties of Miami. The stage ends with a gunfight aboard a yacht belonging to a rival head of family, and it's certainly a long way from the fishing boat that makes an appearance in *Godfather Part II*…

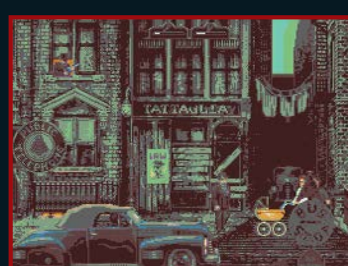


NOTABLE VERSIONS OF THE GODFATHER



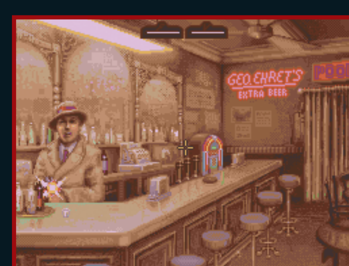
AMIGA

■ Pete Lyon's graphics were originally designed specifically for the Amiga release of *The Godfather*, so this is pretty much the definitive version of the game. However the downside is that the game must be played directly from its six floppy discs, and the frequent loading pauses can cause a bit of a headache.



ATARI ST

■ Creative Materials was probably a little over-ambitious in attempting to port such a graphic-intensive title to the Atari ST, and unfortunately the result isn't really up to scratch. The noticeably reduced colour palette, sluggish game speed and jerky scrolling all add up to an all-round inferior product.



PC

■ The PC version is a surprisingly sophisticated conversion for its time, with 256 colour VGA graphics that are near-identical to the Amiga original. Additionally the introductory music is possibly better than on the Commodore machine, and the option to install to a hard drive means it's a far slicker experience.



to that end were secondary. I think they felt that if everything wasn't hand drawn then it wasn't value for money! Whereas I just saw the computer as another tool. For the record, almost nothing was scanned except maybe some of the newspaper mock-ups, but only because it was quicker and better to draw from scratch than to tidy up any visual artefacts."

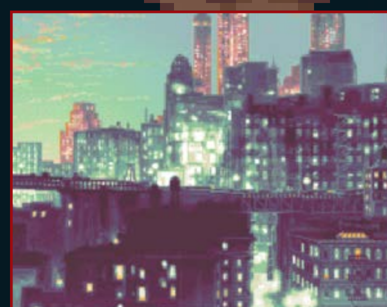
On the subject of the films' darker, more violent themes, Pete explains how he took the approach of depicting the bloodshed in a manner more suitable for a videogame. "I admit that I did not give much thought to the very real issues associated with the portrayal of violence," he tells us. "In my mind [games] then were still 'cartoon-like' in their depiction, like *Tom & Jerry* or *Road Runner*. I envisaged it as a sort of fairground shooting gallery. I had been

> **"Keep your friends close, but your enemies closer"**
> Don Michael Corleone

influenced by the early graphic novels and comics that had started to appear in the Sixties as well as the American pulp magazines and just saw it all from a stylistic point of view." While the game was available in the UK in the days before videogame classification, it did end up being banned for sale to under-18s in Germany.

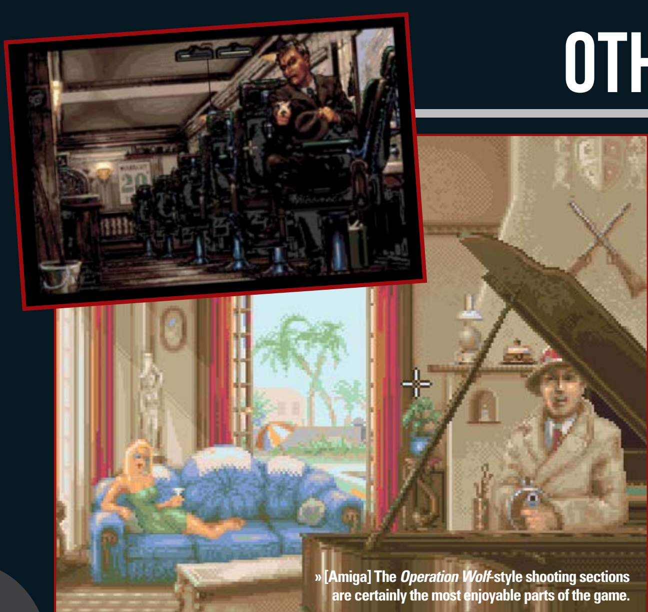
"On the whole I have fond memories of the time and the title," remembers Tim. "It wasn't the best title of the era, but we put in some significant effort making it as good as it turned out. The highlight, technically, of the title, for me, was the final end-of-game baddy which, if I remember correctly, was a large helicopter scrolling around a parallax glasshouse scenario."

The Godfather was US Gold's only dalliance with the iconic licence, despite plans for other tie-ins, including an adventure game and releases for the Sega Master System and Mega Drive. At the time it was reported that the French software house Delphine was working on an action-adventure based on the third *Godfather* movie, a deal which ultimately fell through. However the prototype later became something rather cinematic and groundbreaking in its own right, a game called *Flashback*. But that's another story… ★

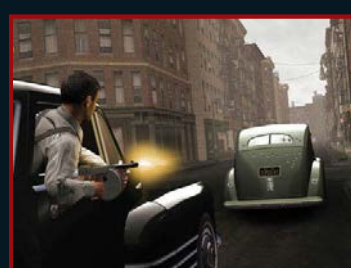


» [Amiga] The game's incredible panoramic intro sequence.

OTHER GODFATHER VIDEOGAMES



» [Amiga] The *Operation Wolf*-style shooting sections are certainly the most enjoyable parts of the game.



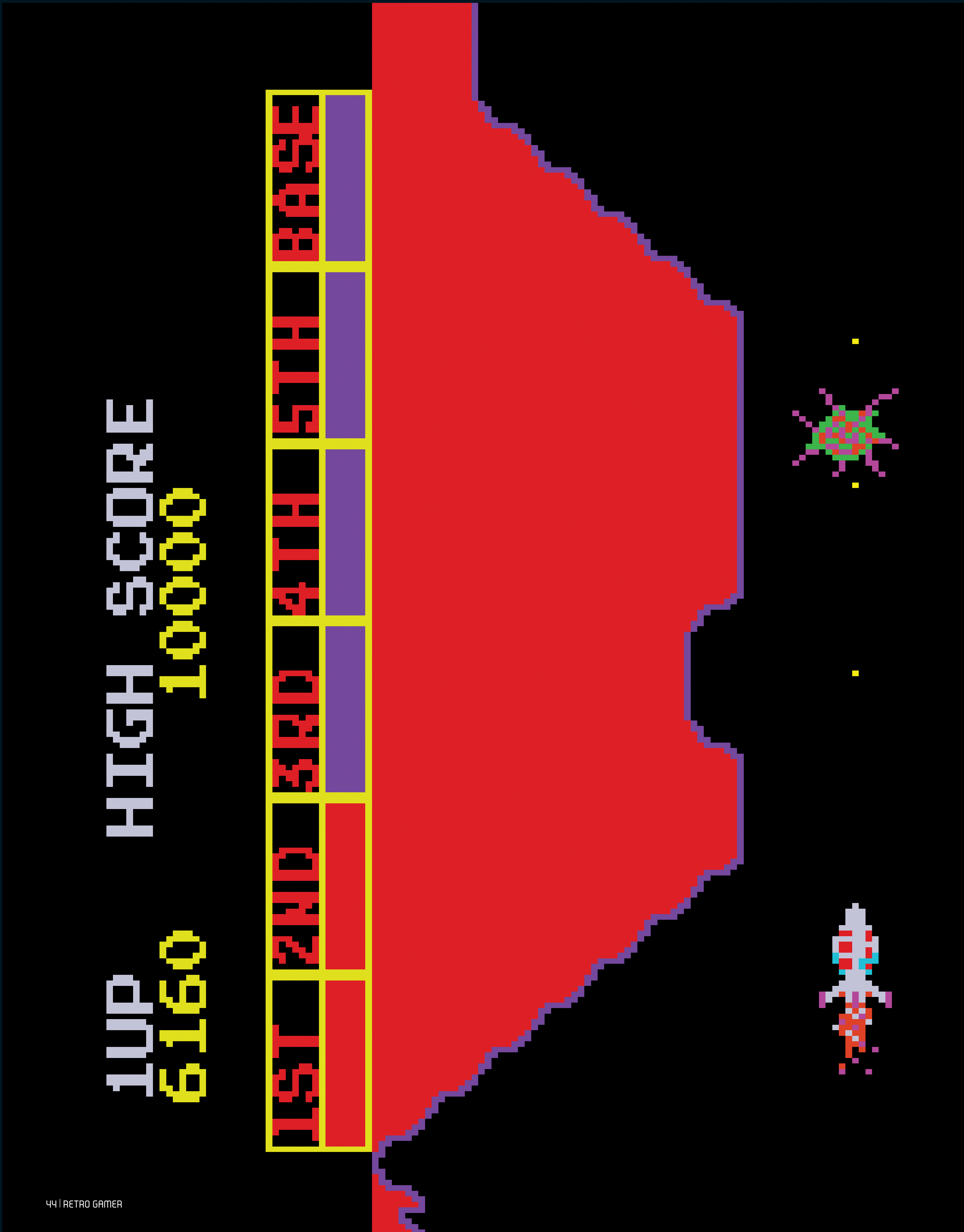
THE GODFATHER (2006)

■ Taking a leaf from Rockstar's *Grand Theft Auto*, EA's licence of the original movie reunited the likes of Robert Duvall, James Caan and even Marlon Brando in a brief cameo (his lines were finished by a stand-in, mind). It incorporates key moments from the film across 18 missions, although Al Pacino's presence is notably absent.



THE GODFATHER II (2009)

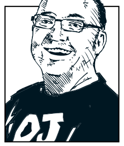
■ This second outing from EA is similar to the film sequel in attempting to offer a more expansive storyline, improved visuals and three locations – New York, Miami and Cuba – to explore. However its cool reception meant that a planned third game, based on *The Godfather: Part III*, was ultimately cancelled.


1UP
6160
HIGH SCORE
10000
1ST
2ND
3RD
4TH
5TH
BASE

Scramble

MY EYES, MY EYES!

» RETROREVIVAL



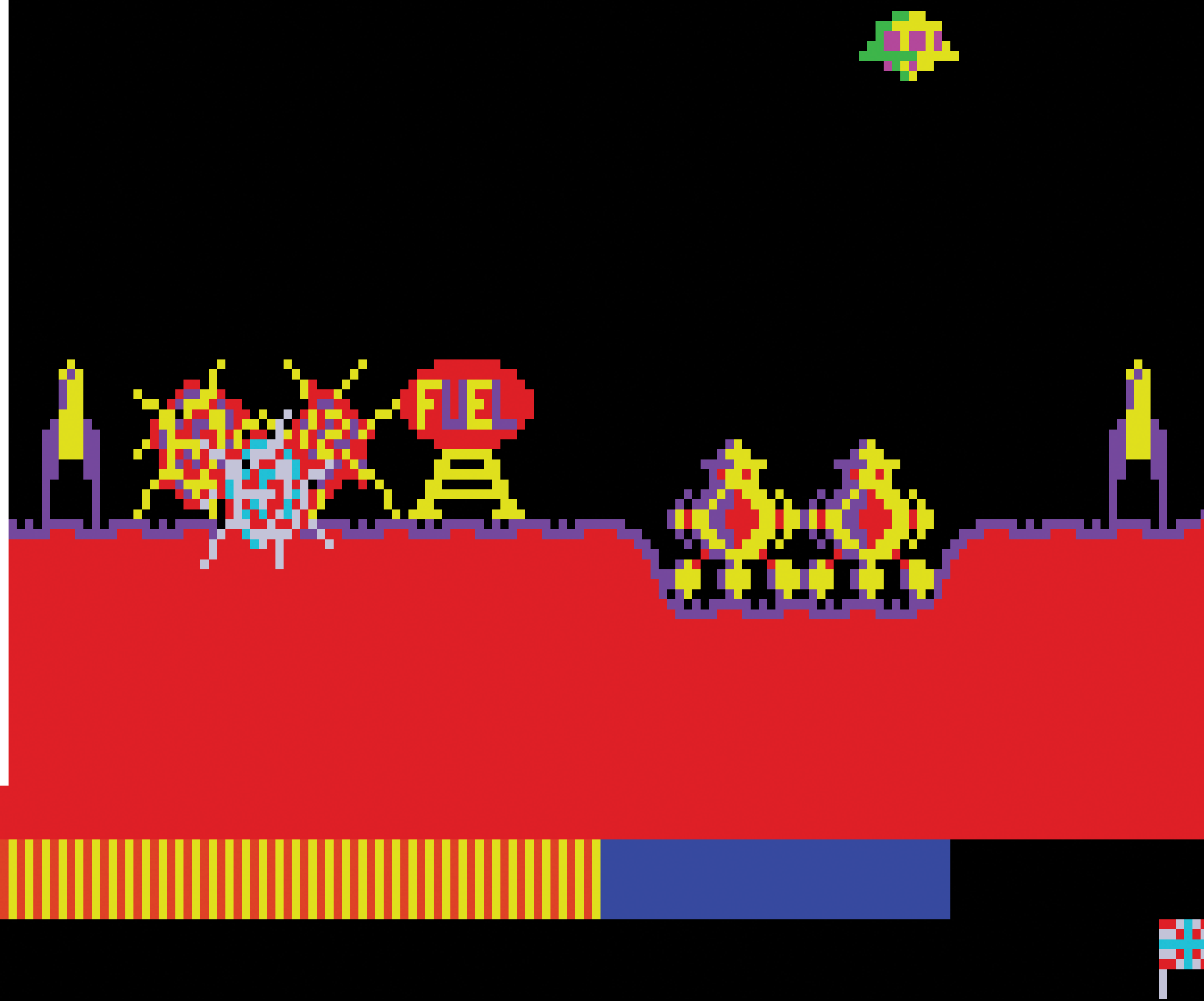
» ARCADE » KONAMI » 1981

I've always had a soft spot for this early Konami shooter. Regardless of whether you feel it's part of the *Gradius* canon or its own standalone series, there's no denying that it remains an intense and very satisfying shoot-'em-up.

A recent play on a MAME cabinet reacquainted me with the game and I was delighted to find that it's stood the test of time extremely well. Yes it's not that flashy – there are no power-ups, or fast-paced action for that matter – and, yes, the gaudy colour schemes Konami used are a lot harder on my eyes than they were 35 years ago, but my goodness is it still fun to play.

Konami's game was fairly unique at the time, because it actually depicted you traversing through different environments. They were gaudy, ugly eye-searing environments, admittedly, but environments all the same, and the further you progressed, the more interesting everything became. A craggy desolate landscape gave way to caves crawling with UFOs, which led to a dangerous meteor storm. It all ended with a tricky path through treacherously tall skyscrapers as you attempted to obliterate the alien base to kingdom come. Phew.

Of course, navigating the perilous landscape was only half the battle. The enemy forces had a large number of rockets that would fly upwards without warning, requiring you to shoot them down or avoid them. Worse still, you only had access to a certain amount of fuel, which continually depleted as you progressed through the stage. Fortunately, fuel drums were found along the way, which could replenish your dwindling supply when destroyed. I'm not sure how shooting fuel would replenish your own supply, but hey, it's a videogame. *Scramble*'s fuel mechanic may be nonsensical, but it's also one of the earliest examples of risk versus reward that I can remember and it's a mechanic that's had me hooked ever since. *





THE HISTORY OF SEGA



Scream it out loud: Sega has been one of the most influential players gaming has ever seen. But, as David Crookes shows, it has certainly had its ups and downs…

In the immediate years following the defeat of Japan in the World War II, General Douglas MacArthur oversaw widespread political, economic, military and social reforms during the United States' occupation of the former empire. The country was still reeling from the devastation of the atomic bombs dropped on Hiroshima and Nagasaki, but during its rebuilding a sense of opportunity began to arise.

David Rosen, a United States Air Force officer, stationed in Japan during the Korean War, had spotted the country's potential. He had noted how Japanese artists produced impressive painted portraits based on photographs and, on leaving for the United States, he grew a business sending American images across the Pacific. When he returned to Japan he saw the rising need for ID photos and so he undercut Japanese photographers by importing fast-processing photo booths. His business succeeded for years.

But he wasn't the only active US businessman in Japan. In 1945, Irving Bromberg and his son, Marty Bromley, formed a company called Service Games in America which distributed coin-op machines to various US military bases. In 1951, laws restricting their transportation were put in place which meant there was an abundance of machines lying unused, so Marty began exporting them to Japan (later shipping machines to the UK, too, starting with the Sega Bell one-armed bandit).

David also wanted to ship machines from the US to Japan. He spent a year negotiating with the Japanese authorities before being allowed to import $100,000 worth of machines. Sourcing them from Chicago, they tended to involve shooting and David operated more than 1,000 gun corners, with *Shoot The Bear* being a typical offering.

Rosen Enterprises and Service Games grew fast, opening arcade centres and bowling alleys. But as

SEGA KEY PLAYERS



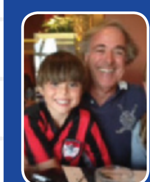
David Rosen
The founder of Rosen Enterprises merged his company with Service Games in 1965, becoming CEO of what became known as Sega Enterprises. He stayed with the company in various roles until his retirement in 1996.



Masami Ishikawa
Ishikawa joined Sega's amusement machine division in 1979 and became leader of home console R&D division, Away 27. He worked on producing the SG-1000, Master System and Mega Drive before returning to arcade.



Hayao Nakayama
Named as the executive producer on a host of Sonic games, Nakayama was CEO of Sega from 1984 to 1999. He was a firm believer in Sega's need to control its own hardware platform.



Michael Katz
Having worked for Lever Brothers, Mattel, Coleco, Epyx and Atari, Michael Katz became president of Sega Of America in 1989 a month after the launch of the Mega Drive and stayed on for a couple of years.



Tom Kalinske
Widely seen as the man who turned around Sega's console hardware fortunes, the former Mattel and Matchbox CEO was Sega Of America's innovative president and CEO from 1990 to 1996. He sanctioned the ad attacks on Nintendo.



Yuji Naka
Having created *Girl's Garden* for the SG-1000, Naka went on to code *Sonic The Hedgehog* for the Mega Drive. He became producer at Sega Enterprises in Japan, working on Saturn and Dreamcast games.



Yu Suzuki
The long-time head of Sega's famed AM2 development division directed many of the company's most successful games, with the likes *Hang-On*, *Space Harrier*, *Virtua Racing* and *Shenmue* showcasing the developer's technical advances.



Hidekazu Yukawa
Dubbed 'Mr. Sega', Yukawa became Sega's popular senior managing director during the era of the Dreamcast. He also appeared in numerous offbeat adverts in Japan promoting the system and made in-game cameos.

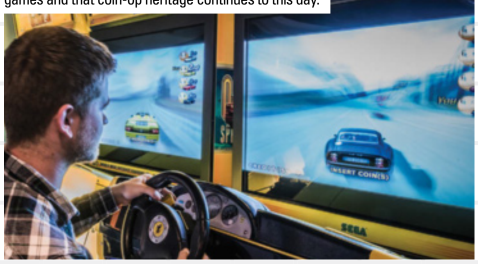
competition grew and Service Games fell under heavy scrutiny by US and Japanese authorities, the two joined forces. Sega Enterprises was formed in 1965 and David became president.

PERISCOPE AND BEYOND

Sega's first original game, *Periscope*, was developed in 1966 and it cost 30 yen or 25 cents to play. The machine was some ten feet deep and six feet wide, with a periscope controller, cardboard cut-outs of ships which moved horizontally and lights which represented the player's torpedoes as they sped towards their target. It was also the first game Sega had exported from Japan rather than imported and it began doing so well, Gulf And Western snapped it up in 1969.

David Rosen remained at the company's helm and Sega decided to take a piece of the-then burgeoning videogame market. It published Gremlin Industries' monochromatic arcade maze game, *Blockade* in 1976 before merging its operations with Gremlin three years later. Popular titles such as the innovative dot-eating car maze game, *Head On* in 1979, were created under the Gremlin/Sega or Sega/Gremlin branding label. Subsequent games, such as *Turbo* in 1981 and *Zaxxon* in 1982, saw Sega on a roll.

Sega also entered the home console market with the 16-colour, 8-bit Zilog Z80-based SG-1000 on 15 July 1983 (the same day as Nintendo's Famicom), throwing in a home computer – the SC-3000 – for good measure (basically adding a keyboard and hardware expansion support to the console). But the downturn in sales and expense of the arcades worried David. He tried to persuade manufacturers and distributors to sell conversion kits rather than entire, completed cabinets but he was roundly mocked. The games industry crashed and Gulf And Western wanted out.



» Sega found great success with its Eighties arcade games and that coin-op heritage continues to this day.

In 1984, Sega's US assets were sold to Bally/Midway. David was offered the Japanese division for $38 million, promoting him and Hayao Nakayama – who had run a distribution company bought by Sega in 1979 – to seek financial backing. CSK Holdings, led by Isao Okawa, was among the concerns, stepping forward with the cash. Nakayama became CEO of the 'new' Sega while David worked from Los Angeles.

ARCADES AND CONSOLES

In 1984, the SG-1000 was discontinued in favour of the SG-1000 II which came with detachable controllers and the ability to play Sega Card games. It only lasted around 15 months but it helped to lay the groundwork for the years to come. Notably, a young games designer called Yuji Naka created a game called *Girl's Garden* alongside Hiroshi Kawaguchi, while Yu Suzuki developed the 2D boxing game *Champion Boxing* and the groundbreaking motion-controlled *Hang-On* for the arcades. It had players sitting on a large motorbike fitted with a screen.

The arcades were where the company continued to make its mark. The introduction of the System 1 and System 2 boards saw the production of games such as *Flicky*, *Pitfall II: Lost Caverns* and *Wonder Boy*. The System 16 arcade board underpinned some 40 games including *Shinobi*, *Altered Beast* and *Golden Axe*. Yet Sega wasn't about to give up on home consoles. It released the SG-1000 Mark III in Japan in October 1985. It also decided to take this machine to the USA and Europe the following year, renaming it the Master





» A small selection of Sega games, every one a genuine classic.

"[Fans of the Master System] were very vocal because it wasn't fashionable and they had to defend it"
Al Nilsen



System. Distribution in the UK – where the console cost £95.95 – was handled by publisher Mastertronic.

The new console had two slots – one for top-loaded cartridges and another for games of up to 256k stored on cards – and there were lots of original games and arcade conversions available. A pack included a lightgun, control pads and a dual-cartridge that included *Hang-On* and *Safari Hunt*. There were innovations, too: in 1987, liquid crystal 3D glasses were unveiled which hooked into the card port and used a shuttering effect to rapidly close the left and right lens. It flopped, but it was certainly ahead of its time.

As the decade wore on, games such as *Out Run* – based on Sega's smash-hit arcade racer of 1986 – rubbed shoulders with *Choplifter*, *Space Harrier* and *Alex Kidd In Miracle World*, the latter being Sega's answer at the time to the Nintendo mascot, Mario. Many Sega games also appeared on home computers thanks to deals with U.S. Gold, Activision and Elite Systems. Yet Sega had its work cut out in the console market. Nintendo had snapped up pretty much every developer worth its salt and it had ordered third-party creators working on the NES to give the Master System a wide berth.

Only in parts of Europe, to a degree, and Brazil – where the machine thrived to such as extent that it still sells today – did Sega halt Nintendo's runaway success. Elsewhere, Nintendo took a whopping 90 per cent share of the market. Yet there were reasons to be cheerful. Al Nilsen, who became Sega Of America's marketing director, says those who bought the Master System were incredibly loyal. "They were very vocal because it wasn't fashionable and they had to defend it," he tells us. "It was interesting going into a focus group of people who owned a NES and a Master System. Without them even talking about the consoles, it was possible to tell who owned which."

In a bid to turn things around, Sega farmed out the US distribution rights for the Master System to Tonka in the hope of reinvigorating the console in America. It didn't. Sega then sought to put more of its effort into Europe, where the bulk of its consumer revenue was coming from, thanks to the console market being more open due to the popularity of home computers. Eventually, it decided to make one last dive into market with a new console – but not without testing the water first.

"David Rosen had come to see me when I was at Atari in 1988," the then-president of its videogame division Michael Katz tells us. "I'd known him from my days at Mattel and Coleco and he said Sega had decided it would prefer not to introduce another hardware console in the US and that it would rather work on software only. He wanted to know if Atari would be interested in licensing a new console it had been working on.

"I loved the idea because it would have meant Atari having the first 16-bit console. Jack Tramiel [who had bought the consumer division of Atari from Warner Communications in 1984] initially said yes. But negotiations broke down over money. Jack wasn't a gaming guy." Sega decided it would control the console itself and it became known as the Mega Drive.

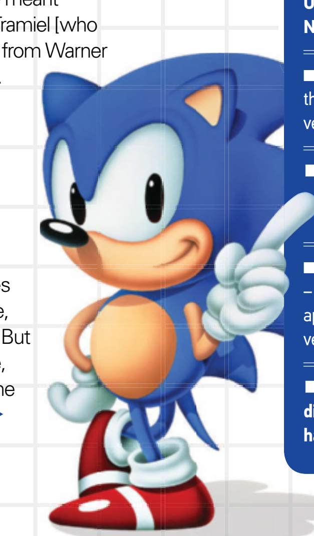




» [Master System] *Hang-On* was a faithful conversion, although it didn't come with a motorbike…

THE GLORY YEARS

For legal reasons, the console had to be renamed in the US. Five different packages were put forward to Al, one called Cyclone, "And one with a fox on the box," he says. But it was Atari's original name for the console, Genesis, that stood out and so that became the US name for the Mega Drive. ▶



IN THE KNOW

- **The name Sega is derived from Service Games – the company which merged with Rosen Enterprises in 1965 to form Sega Enterprises.**
- It began making its own arcade games in the late Sixties and its electromechanical titles included *Periscope* (designed by David Rosen), *Duck Hunt*, *Grand Prix* and *Missile*.
- **The *Killer Shark* cabinet from 1972 appeared in the 1975 movie, *Jaws*.**
- Until the System 1 platform was released in 1983, Sega experimented with various systems from discrete logic to LaserDisc.
- **Sega's debut console, the SG-1000 debuted the home version of *Flicky* and had 69 standard cartridge releases.**
- More Master Systems were sold in Brazil than anywhere else and it still sells 150,000 per year there today.
- **Nintendo only rescinded its exclusivity requirements in 1990, allowing many third-party developers to work with Sega, too.**
- Japan's Mega Drive had nifty online capabilities.
- **Sega Of Europe was formed in 1991.**
- Sega Of America had 35 staff in 1989 and gross sales of $813 million – by 1993 it had 700 staff and $3.6 billion gross sales.
- **In 1993, it had 45 per cent of the US videogame market, compared to Nintendo's 44 per cent.**
- A Sega VR headset was developed for the arcades but Mega Drive and Saturn versions were scrapped.
- **Sega had plans to be bigger than Disney and wanted networked Sega theme parks.**
- Before making the PlayStation, Sony – which had been rebuffed by Nintendo – approached Sega but its board of directors vetoed working together.
- **When the Dreamcast was discontinued, it ended 18 years of home hardware production for Sega.**

GOOD IDEA

Buyout
■ **The company snapped up a distribution company run by 'soon-to-be-Sega-president' Hayao Nakayama in 1979.**

SG-1000
■ Launching the SG-1000 in Japan created the foundations for Sega's home console assault.

Arcades
■ **Investing heavily in the arcade division where it pioneered and created scores of franchises.**

Sports
■ Deciding to concentrate on sports and personality-led games, giving Mega Drive titles recognisability, exclusivity and an 'edge'.

Sonic
■ Dropping *Altered Beast* for *Sonic The Hedgehog* as the Mega Drive's pack-in title.

Price
■ **Slashing the price of the Mega Drive in the US from $189 to $149, kickstarting sales.**

Competitiveness
■ Riding roughshod over advertising conventions and upsetting the Japanese board by gunning for Nintendo.

EA
■ **Agreeing to partner with Electronic Arts on the Mega Drive, despite handing the publisher favourable terms.**

BAD IDEA

Tonka
■ **Allowing Tonka to market the Master System in the US when the company lacked the required experience in videogaming.**

32X
■ Creating the stopgap 32X, yet making it known to gamers that the Saturn was on its way.

Mega-CD
■ **Shipping the Mega-CD add-on for the Mega Drive while failing to have a decent pack-in title.**

Dreamcast
■ Failing to blaze a trail ahead of PlayStation 2 by eschewing DVD capability in favour of its own proprietary GD-ROM format.

Sony
■ Turning down Sony's assistance on a CD-based machine – 'The stupidest decision ever made in the history of business", says Tom Kalinske.

Saturn
■ **Rushing to launch the Saturn when there were just six launch games and not enough supplies.**

Overreaching
■ Marketing the Mega Drive, add-ons, Game Gear, Master System, Nomad, TeraDrive and Saturn at once was too much.

Nomad
■ **Launching the Nomad handheld based on the Genesis six years into the Mega Drive's life.**

But those issues aside, it was what was inside that mattered: notably a 16-bit Motorola 68000 processing chip twice the speed of the NES' MOS Technologies 6502, an ability to display 64 on-screen colours from a palette of 512 and a separate sound processor.

Before the new console could enjoy its success, though, there was the little matter of another competitor: NEC's TurboGrafx-16. "We knew if we didn't knock NEC out of the marketplace we wouldn't have a business in 1990 and 1991," recalls Al. "I remember one retailer telling me, 'NEC have these beautiful videos and brochures and they are going to eat your lunch, and you're going to fail, and I'm going to return every one of your machines on December 26.' We just cared that it was going to be in the stores."

Shortly after, David approached Michael again, who had left Atari, this time to offer the job of president of Sega Of America. Michael knew it was a daunting challenge: he would have to seek warehouses and build solid development, marketing, sales and operational divisions. "But I've always liked launching new products and I saw it as a good opportunity," he tells us. "The only thing we lacked was a library of exciting games."

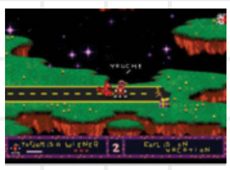
Up to that point, successful console games had tended to be arcade conversions. "But Nintendo had strong relationships with Japanese companies such as Namco and Konami," Michael remembers. "That had worked against Atari and Mattel and we were facing the same problem at Sega. It occurred to me that we could get sports or entertainment personalities on an exclusive basis instead."

One company starting to make its mark with sports games was Electronic Arts, but its founder, Trip Hawkins, didn't like the way that console manufacturers operated back then. "Can you imagine how it felt when Nintendo came along and said, 'Here's the deal – you have to give us a third of your revenue, make only five games a year, let us approve and manufacture them and let us put them on a boat that will take a month to reach your country, after which God help you if you can sell these things,'" Trip tells us. "It was not only shock and awe, it was disruptive."

As a result of those restrictions, EA didn't make games on the NES, yet the industry was moving towards consoles and









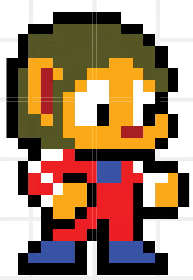
» [Mega Drive] The *Golden Axe* series proved to be popular on Mega Drive, with the console getting two exclusive sequels.

forcing Trip's hand. "I heard Sega was bringing out a 16-bit console," Trip remembers. "And I thought, 'How can we help Sega, but have freedom?'" His plan was to buy a Mega Drive when it launched in Japan in 1988 and reverse-engineer it with a view to going it alone. To fund any possible lawsuits and the cartridge manufacturing costs, EA went public.

"We didn't know if [the Mega Drive] had patents like Nintendo's but we knew it was coming to market fairly soon," Trip says. "When we got it, we placed [the console] in a clean room with no information or tools in it and tried to figure it out. Reverse engineering is a very dark, lonely and desperate journey and my biggest heroes in the games industry are the men who went into that room. It took them several months but lo and behold, they pulled it off."

Sega was unaware EA was doing this. It had tried to convince Trip to make Mega Drive games but each time, he would express concerns about the business model. "They would chuckle, leave and come back," he says. "But I was keeping them in a state of limbo." He planned to study the US version when it arrived in August 1989 to make sure it was the same as the Japanese console but in June that year he broke his silence.

"I realised it was time to tell Sega what we were doing and see if it was possible to be partners," he says. "I told them I didn't like the draconian business model but I liked the machine, and I pointed out, 'Look, I don't need your intellectual property – I reverse-







13%
MEGA DRIVE (SIX-BUTTON)



BEST SEGA CONTROLLER

SEGA SATURN (JAPANESE VERSION)

There were two versions of the Sega Saturn controller, with the best having been introduced in 1994 in Japan. Light and solid, it was an evolution of the similar-looking Mega Drive's six-button pad, albeit with the addition of a couple of shoulder buttons. The D-pad was on the left, there was a Start button in the middle and the six buttons were to the right: A, B, C along the bottom and slightly smaller X, Y, Z buttons across the top. To cater for the hands of Western players, a larger version was created for the US and EU, but it proved to be less popular.

engineered it and I will go without a licence.' I said we'd fight them for years. They tried to huff and puff and blow our house down." In the end, a deal was made. Trip wanted to release 20 titles in the first year – "Sega was blown away by that," he laughs – and he wanted a $2 million licensing fee cap. It was a sticking point but he won.

"I realised I had a three-year lead on other publishers and that we could be strong in certain markets like sport," Hawkins says. "*John Madden Football* had already been around for a few years and the Mega Drive had two joysticks and a lot of power for a good sports experience." EA came in handy when Mediagenic looked to be failing to produce a game based on the American football quarterback Joe Montana, who had signed a $1.7 million, five-year deal with Sega. Michael called Trip who agreed to take on *Joe Montana Football*. "We were having to develop a library across five or six genres," Michael says. Things were falling into place.

The Mega Drive launched for $189 in 1989 in the US and £189.99 in the UK in 1990. Games included the pack-in *Altered Beast* as well as *Ghouls 'N Ghosts, Super Thunder Blade, Tommy Lasorda Baseball, Alex Kidd In The Enchanted Castle* and *Space Harrier II*. Later, *Ghostbusters, Michael Jackson's Moonwalker, Rambo III, Pat Riley Basketball* and *Buster Douglas Knockout Boxing* were launched. The latter formed part of the advertising campaign, "Genesis Does What Nintendon't" – and that proved controversial.

"It was a competitive strategy," Michael says. "We had the power of the 16-bit system – better graphics, sound and action – and we had personalities as well as good sports games. That's what we hung our hat on and it was a successful battle cry." In the first six months, around 500,000 consoles had been sold. But Nakayama had a specific goal – 'Hyakamundai' or one million sales – and it was far from being reached.

Nakayama brought in Mattel's Tom Kalinske who eventually became president. "They didn't understand that you don't just snap your fingers with a new console with no software supporting it, going against a company with a 90 per cent share of the market," says Michael. After a brief period observing, Tom got stuck in. "I reduced the price to









▶ $149 and I removed *Altered Beast* as a bundled title so we could focus on Middle America – the game sounded like a devil," he says. It was time for a super-fast, blue, creature to step forward.

"When I first saw the blue guy with the spikes in Japan, it was like, 'We got it.' We knew we could go up against Mario with that," says Al. *Sonic The Hedgehog* became a vital component of the Mega Drive package and it had been developed by a talented team in Japan. "Sonic's project leads were Yuji Naka, the programmer and team leader, designer Hirokazu Yasuhara, artist Kunitake Aoki and musician Howard Drossin and there was a substantial support group around them," says Roger Hector, former Vice President of the Sega Technical Institute (STI). "They were hugely important and my role when I joined was to keep the path clear in front of the team and make sure the rest of the company was in sync."

The team had almost immediately been brought under the control of Mark Cerny who initially headed up the US-based STI. It made sense given the great strides being made by Sega Of America in popularising the Mega Drive. "I insisted on putting *Sonic* in with the hardware," says Tom. "I'm told the board in Japan thought it was crazy because it was the best title and nobody makes money on the sale of hardware. But it worked."

The console began being sold in K-Mart and Walmart and it was flying off the shelves. "Tom got the board of directors to say, 'Yes, yes, you can sell for $149 and pack-in *Sonic*,'" Al remembers. "They were the things we had been talking to Sega Of Japan about and it was falling on deaf ears." Sega was on the up.

Mega Drives were integrated within PCs made by IBM and Amstrad (the Sega TeraDrive and Mega PC); Tom Kalinske and Shibobu Toyoda, the vice president of licensing in Japan, attracted more third parties; Sega bought Virgin Mastertronic – which had the distribution rights for the Mega Drive in the UK, France and Germany to form Sega Europe; and *Mortal Kombat*, *Aladdin* and *Ecco The Dolphin* became hits.

For every Nintendo game sold, 1.4 Mega Drive titles were snapped up. "The entire [STI] team was super-talented and driven to make each game better than the last," Roger adds. "I enjoyed working with this kind of group. But I also enjoyed several other projects including *Comix Zone* because of its very original concept and talented team, and *Die Hard Arcade* because it brought me back to my coin-op roots."

The cash rolled in. "In 1992, our revenues were at least £500 million and by 1994, we were over a billion dollars in revenue so we grew very, very rapidly," says Tom. Nintendo had launched the SNES in Japan (1990), US (1991) and Europe (1992) but its dominance was broken. "We took Nintendo on in advertising and we made fun of them," he says.

Indeed it did. "Sega Of Japan was not too thrilled with 'Gensis Does What Nintendon't' because the Japanese don't believe in competitive advertising," says Al, whose marketing budget was $20 million – a fifth of Nintendo's. "But those four words established what we were trying

FRANCHISE STARTERS

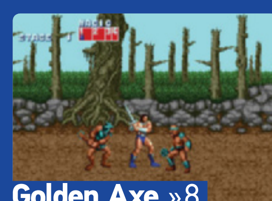
Sega produced many revered titles



Sonic The Hedgehog 70



Out Run » 10



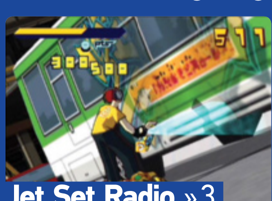
Golden Axe » 8



Virtua Fighter 18



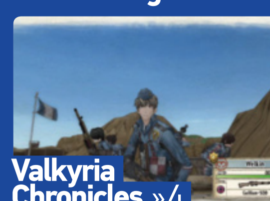
The Shining series 31



Jet Set Radio » 3



Shenmue » 2



Valkyria Chronicles » 4





to accomplish. Our audience were rebels and cutting edge and we weren't about saving princesses."

Ad agency Goodby, Berlin & Silverstein came up with the Sega Scream. "We were experimenting with really short commercials and we had this guy scream the word Sega," Jeff Goodby explains. "We didn't know how we would use it but it was funny and it sounded Japanese which was cool. We put it at the end of every commercial and we'd used the same voice in the mouth of a dog or have other people say it. The scream was about frustration, freedom and abandonment in the game world." Sega had found its voice.



» [Dreamcast] *Crazy Taxi* started off in arcades but eventually moved to Dremacast.

DRASTIC DOWNFALL

The Mega Drive was successful, topping 31 million sales, with the Mega Drive II in 1993 bolstering its position while boasting a less expansive mainboard. The arcade division was also strong, with *Bonanza Bros.*, *Crack Down*, *Alien 3: The Gun*, *Jurassic Park*, *Virtua Fighter*, *Sega Rally Championship*, *Virtua Striker*, *Virtua Cop*, *Virtua Racing*, *Daytona USA*, making Sega a coin-op name to watch. There was an educational machine called Pico and *Sonic The Hedgehog* spawned a sequel, earmarked for a worldwide '*Sonic 2* Day' launch. The Sega Channel – a content delivery service provided via cable TV – had 250,000 subscribers.

But while Sega arcade centres opened worldwide with 1,200 in Japan and a flagship SegaWorld London launched at the Piccadilly Trocadero, not everything turned to gold. The Game Gear – launched in Japan in 1990 and the US and Europe in 1991 – flagged behind the Game Boy; a virtual reality helmet, originally planned for the Mega Drive, only launched in the arcades; and the first full-body motion-sensing controller, Activator, for the game *Dragon Ball Z V.R.V.S.* was laughable. And yet, "We were changing the videogame market place from one that was for 6 to 12-year-olds to one that welcomed girls and teens, tweens, young adults and adults," says Al. "We established the modern-day games industry and we had a character with a 'Q score' [a measurement of familiarity] better than Micky Mouse in just one year."

Still, technology had to move on. In 1991, the Mega-CD (Sega CD in the US) add-on launched as an experiment for the future. "It was really hard to figure out how to put games on an optical disc, initially," Tom says. "Developers had to [master] a learning curve." But it was followed by the 32X which was an attempt to push the Mega Drive to 32-bit and yet felt pointless. "It had no software support and was ridiculously expensive," says Al. It sold 664,000 units. ▶

NOTABLE ADD-ONS

Master System 3D Glasses
■ **Sales** Negligible

Game Gear TV Tuner
■ **Sales** Unknown

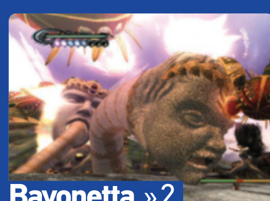
Mega-CD
■ **Sales** 2.24 million

32X
■ **Sales** 665,000

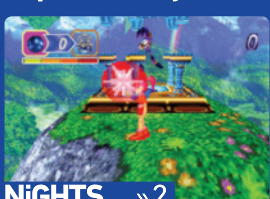
Sega Channel adapter
■ **Sales** 250,000



12
Super Monkey Ball

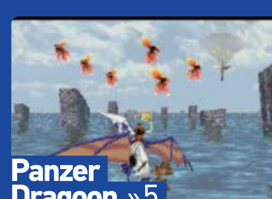

Bayonetta » 2

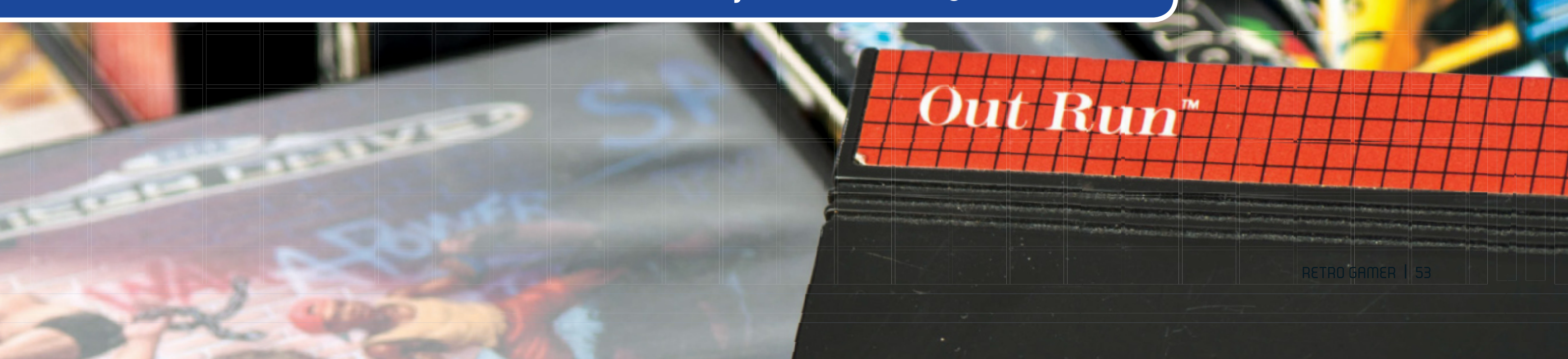

14
Shinobi


NiGHTS... » 2


ToeJam and Earl » 3


23
Phantasy Star


Panzer Dragoon » 5





10 THINGS SEGA GAVE GAMING



Sonic The Hedgehog

■ Originally designed as a sharp-fanged, spike-collared, villainous and crude creature with an electric guitar, Sonic was softened on release but still retained his attitude. Sega had wanted to replace Alex Kidd as its poster child and asked various developers to come up with a Mario-beating mascot. The platformer's speed was jaw-dropping.

Pioneering coin-ops

■ Apart from introducing 25-cent play in the US, Sega's arcade games proved innovative. From the first racer to have a third-person rear view (*Turbo*) to the first FMV LaserDisc game, *Astron Belt*, to the first system to produce isometric graphics – *Zaxxon* – and high frame-rate, pseudo 3D sprite-scaling in *Hang On*.





Maturity

■ Former Sega marketing supremo Al Nilsen says that Nintendo had a firm hold on the 6 to 12-year-old market so, in response to this, Sega decided to shift the target audience for its games. "We were trying to get people who were no longer playing consoles to get back into gaming; the 13-year-olds who had put their consoles away," he says.

A competitive market

■ If Nintendo played *Monopoly* with other games companies a in the Eighties, it would have had all the properties, houses and hotels, leaving Sega with a couple of utilities and a train station. With 90 per cent dominance and third-party developers tied up, gaming needed competition. By 1993, Sega had 45 per cent of the US and 66 per cent of Europe.



"Sega CD helped us prepare for the Sega Saturn," says Al. "It's why Sony initially came on board with us to figure what CD could do." The Saturn had been in development since 1992, under the supervision of Hideki Sato, Sega's director and deputy general manager of research and development, but it launched too soon. "The last thing we needed was confusing third parties with another platform," he adds.

Sega Of America wanted to push the Saturn back a year but Tom was told to go on stage at E3 in 1995 and tell the world that the console was actually being put on shelves at that very moment. "Frankly, truth be told, I didn't want to do it," laments Tom. The problem was a lack of hardware to supply all of the major retailers that wanted it. "I knew I was going to really annoy retailers that didn't understand it."

Then Sony dealt a blow that would be remembered for years to come. "Steve Race, who used to work for me at Sega, made the announcement for Sony that they were going to introduce the PlayStation at a far lower price than Saturn." The Saturn cost $399. Steve took to the platform and said, simply, '$299.' It was game over.

Still, Saturn sold 200,000 units in Japan within a week, thanks to the popularity of *Virtua Fighter* and the machine became home to Sega's top 3D games, but it was difficult to program and expensive to produce.



» [Xbox 360] Sega made and published several games in the *Sega Rally* series. The original remains the best mind.



"Sega CD helped us prepare for the Sega Saturn. It's why Sony initially came on board with us to figure what CD could do"

Al Nilsen

The company was truly the gift that kept giving



Downloadable games

■ Thanks to deals with telecommunication and cable companies, gamers were able to enjoy games on demand with the Sega Channel pay-to-play service on the Mega Drive. Starting in America in 1994, it rolled out to countries across the world before ending in July 1998 and showed the possibilities of digital media.

CD titles

■ Sure, the Mega CD was a flop and it didn't inspire confidence in Sega at the time but, it was still an innovation which attracted the attention of Sony (which used the knowledge it gained to create PlayStation) and enabled developers to experiment with optical discs. NEC's CD add-on beat it to the punch, but Sega's system went worldwide.





Motion sensing controllers

■ The Wii wasn't the first stab at using motion control in games. Sega had also looked at the technology. The full-body motion detecting controller, the Sega Activator, was an octagonal ring that sat on the floor; it also had a fishing rod motion controller and some cool *Samba De Amigo* maracas too.

Online console gaming

■ SegaNet offered online services for the Saturn in 1996 and it did so before Microsoft, Nintendo and Sony had considered doing the same. It offered the same service on the Dreamcast too, splashing out $100 million on the launch, allowing gamers to compete worldwide. It was called Dreamarena in Europe.





3D open worlds

■ It wasn't the first game to feature an open world but *Shenmue* on the Dreamcast was still a head-turner for any gamer, having pretty much started the 'open city' subgenre two years ahead of *Grand Theft Auto III* and proving to be yet another blistering Sega franchise. It allowed players incredible freedom to roam and explore its world.

Second screens

■ The Dreamcast Visual Memory Unit may have been scorned when it was released, but by throwing in a portable device with a console, it introduced the concept of 'second screen' gaming that, while still yet to prove its worth entirely, has been copied and built upon by its rivals since. Sony and Nintendo particularly took note of the idea.



Sega was left floundering, Tom left and COO Bernard Stolar quit Sony to replace him. He oversaw the release of games such as *NiGHTS into Dreams*, *Panzer Dragoon Saga* and *Guardian Heroes*, believing a handful of triple-A titles to be better than shovelware. But the PlayStation had done its damage. Sega had to come back with a new machine.

THIRD-PARTY ERA

Two different teams – White Belt in Japan and Black Belt in the US – worked in secret on separate prototypes of the new console. The former used the NEC/VideoLogic PowerVR2 chip while the latter based it around the Voodoo 2 graphics technology by 3dfx Interactive. The Japanese team won, pleasing Sega Japan's head of hardware development Hideki Sato, but it caused legal fallout involving the companies providing the chips.

On paper, the Dreamcast – originally known as Katana – looked great: the first 128-bit home console with online connectivity. It launched around the same time as the arcade NAOMI board which had identical specs and was seen running *The House Of The Dead 2* and *Dynamite '98* at the JAMMA Show in Toyko. Pundits were optimistic since talented third-party developers had signed up (Bizarre Creations made the Dreamcast exclusive *Metropolis Street Racer*) and one of the technical demos earmarked for E3 teased punters with an impressive portrait of Sonic.

The Dreamcast launched on 27 November 1998 in Japan. It was a week late but it sold 150,000 units on the first day of retail. The US launch on 9 September 1999 was stunning – 500,000 sales in two weeks and 17 available games. Europe sold the same by Christmas. Those who bought it, *loved it*. The years brought *Crazy Taxi*, *Virtua Tennis*, *Street Fighter III*, *Resident Evil Code: Veronica*, *Soul Calibur* and *Shenmue*. Yet some developers were absent. EA wanted sports game exclusivity but Sega wanted its recent purchase, Visual Concepts, to make such titles too.

Then came the blows. Sales declined, Nakayama left and Sony released PlayStation 2, which history showed became the biggest selling console of all time. Sega had no choice but to pull the plug and it also decided to make the Dreamcast its last console. From that point, it would be a third-party developer for other company's consoles – a move the new CEO Isao Okawa – the long-time chairman of CSK – had wanted for some time. Its first game as a third-party developer was *ChuChu Rocket!* on the Game Boy Advance.

Sega then sought to stem its years of losses and looked to find a buyer. The pachinko manufacturer Sammy snapped up CSK's remaining shares in Sega in August 2003 and a new president, Hisao Oguchi, was appointed. The following year, Sega merged with Sammy in a deal worth $1.1 billion, turning the combined entertainment company into Japan's largest. A period of boardroom action followed: Visual Concepts was sold to Take Two in 2005 for $24 million, the same year Sega bought the UK developer Creative Assembly. Sega Racing Studio formed in 2005 (and closed in 2008); Sports Interactive was snapped up in 2006; and its hedgehog mascot was given a fresh lease of life in *Sonic And The Secret Rings* in 2007.







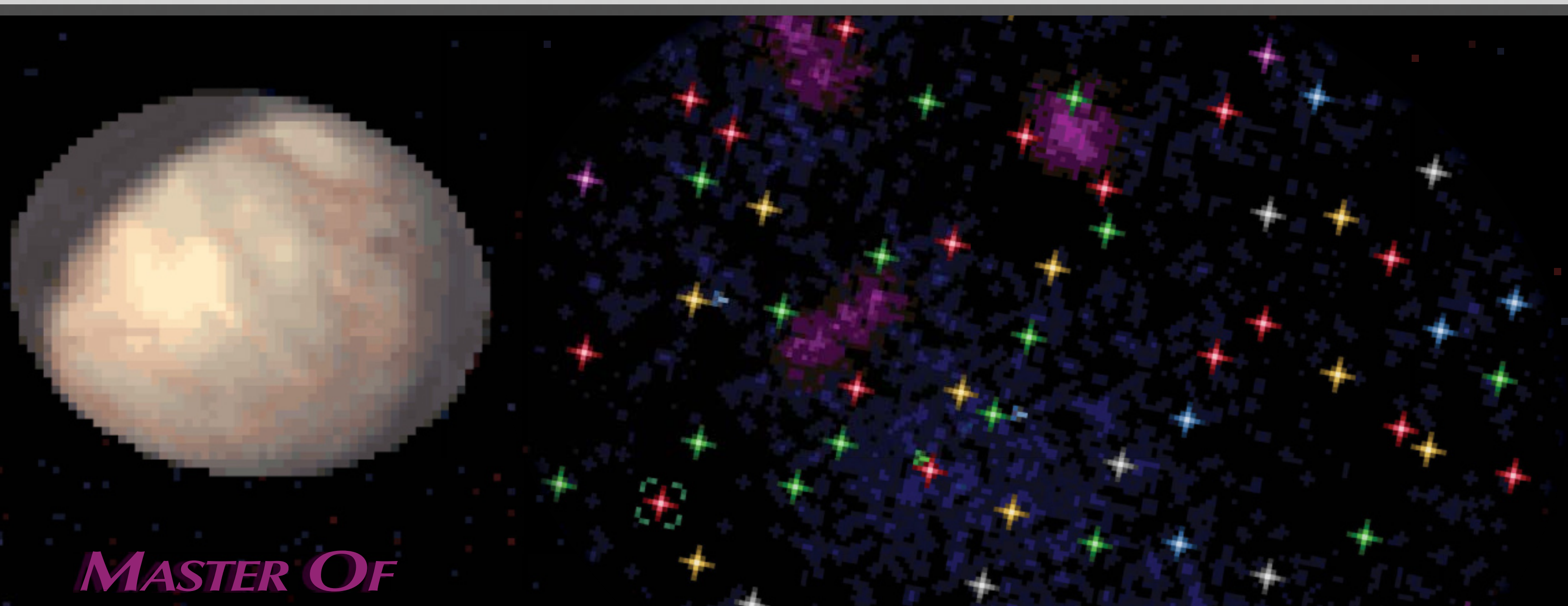


» [PS2] It's literally impossible for us to publish a screenshot of *OutRun 2006: Coast 2 Coast* with the car not drifting.

Sonic also ceased to be a fierce rival to Mario. The plumber and the spiky hedgehog appeared together in the *Olympic* series of games licensed to Sega from 2007. It has certainly been a time of rethinks. The declining arcade market saw Sega axe around half of its Japanese gaming centres and the business was restructured in 2012. But it experimented with web games and has proved successful on mobile. There is lots of life left.

No matter what happens in the future, Sega will never be forgotten. It retains millions of fans and it continues to entertain with new releases and lots of opportunities for nostalgia (cue low-price Mega Drives with dozens of games built-in). Fans support the older machines too: Dreamcast has seen recent titles by the likes of Hucast Games and GOAT Store and Alice Team. Even so there is still a sense of sadness that Sega doesn't continue to make consoles. "We fondly remember those amazing days because of what we created," recalls Al. And so, it has to be said, do we. *





MASTER OF ORION

If you've ever wanted to conquer the stars, there's a good chance you've come across Master Of Orion – one of the most influential space strategy games ever. Nick Thorpe talks to Jeff Dee to get insight on how it colonised our PCs…



MASTER OF ORION 101

■ *Master Of Orion* is a 4X strategy game which casts players as one of ten races competing for galactic domination. Players must explore and colonise planets, develop technology and manage their resources in order to establish control through a mixture of diplomatic advances and military conquest.

There aren't many games that can be held responsible for the definition of a whole genre or subgenre. *Doom* wasn't widely termed a first-person shooter – in fact, for a long time first-person shooters were labelled '*Doom* clones'. Likewise, you're not likely to find any contemporary reviews calling *Herzog Zwei* a real-time strategy game. But for the 4X subgenre of turn-based strategy games, there is a crystal-clear moment where the term was established. That moment was the creation of *Master Of Orion*.

Master Of Orion started life at Simtex Software, a small company established by Steve Barcia and Ken Burd in the late Eighties. Together with Maria Barcia and Mathew Kyle, they put together a prototype game to pitch to publishers by the name of *Star Lords*. In its early state, *Star Lords* was already an accomplished space-faring take on strategy games like *Civilization*. Players were able to choose from a variety of races, including the bird-like Avians, the intellectually-gifted Mentats and the industrious Klackons and attempt to conquer the galaxy by colonising nearby planets, acquiring resources and engaging in trade, diplomacy and warfare with other races.

By the time *Star Lords* was being shipped around to publishers in 1993, it was in an advanced state. The small team had managed to create a compelling game, with a relatively intuitive sliding bar interface allowing players to allocate resources easily to issues such as industrial development, environmental management, ship building and much more. The game also had other core features included, such as trading, diplomacy and research. What *Star Lords* lacked was polish, largely due to the small team working on the game. Steve and Maria Barcia



» [PC] Much of your time with *Master Of Orion* will be spent planning actions on this star map.

had contributed the game's visuals, and Mathew Kyle had worked on the music alongside Maria.

"I had worked for Origin Systems on *Ultima* games, and there I had met Jeff Johannigman. We had both left Origin and he was now working as a producer for Microprose, and was involved on that end when Simtex submitted their prototype," says Jeff Dee, whose connection with the producer was to prove fruitful. "Microprose loved the game but they wanted the artwork redone, and he thought of me," explains the artist, who enjoyed the game itself from his first go. "I got a copy of the *Star Lords* prototype, and it was neat – it's basically the same game that eventually got published. Microprose wasn't looking for changes to the design, they just wanted a visual facelift on it. As a gamer, I enjoyed it."

Curiously, in spite of the publisher's desire to see changes made to the look of the game, it wasn't prescriptive about what those changes should be. "As I recall, the direction from Microprose was very minimal, it was just 'make this thing look better'," says Jeff. "I was working directly with Jeff Johannigman, I never talked with an art director at Microprose, so I think he just trusted me to see the parts that needed help and work on those. It was pretty much programmer art as it stood."

However, the artistic freedom Jeff Dee received was coupled with a severe drawback in the form of the game's schedule. "One always wishes there had been more time," he laments. "You can do more if you're not under a tight schedule, that was the thing with *Master Of Orion*. The game was done – I had to fix the look of it, and do it fast and cheap." How fast, exactly? "I don't remember," he confesses, "but it turned out to be me and comic book artist Bill Willingham, who is well-known these days for his *Fables* series. He's a personal friend of mine, I worked with him all the way back at TSR on *Dungeons & Dragons* stuff, he's the guy I brought in to do the first sketches of the aliens. George Purdy I believe was a guy I had worked with at another company, I forget exactly where, he did a lot of the animation work, taking Bill's original drawings and making the ▶

> **"You can do more if you're not under a tight schedule, that was the thing with Master Of Orion"**
> Jeff Dee



RULERS IN WAITING

Discover the actors in this theatre of war



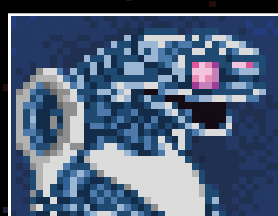
HUMAN

■ Our fair people are the race of choice for players bent on political conquest. Human diplomatic prowess is unrivalled, and humans get a 25 per cent bonus to all trade returns.



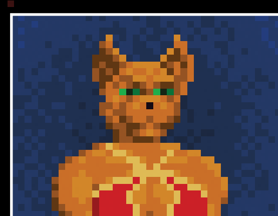
DARLOK

■ These saboteurs are excellent at spying on the other factions. As well as a 50 per cent discount on spies, they get a +20 security bonus to help them discover enemy espionage.



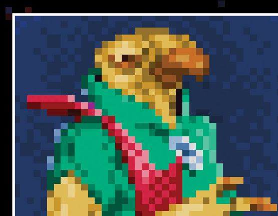
MEKLAR

■ The augmented Meklar race are the industrial kings of *Master Of Orion*, able to control two bonus factories per population. They also get free robotic control upgrades for their factories.



MRRSHAN

■ This cat-like race has a predatory instinct, and its prowess in space combat goes to prove that. Mrrshan ships normally move first, and gain a four-level bonus to their attack rolls.



ALKARI

■ You won't find better pilots than the Alkari, as the bird-like race is used to flight already. They get a three-level defensive bonus to all spacecraft and a +3 bonus to ship initiatives.



KLACKON

■ The ant-like Klackon race is extremely orderly and productive, with twice the per-head output of any other race. They're great at making their new colonies productive early on.



SAKKRA

■ This reptilian race is incredible at breeding – they reproduce twice as quickly as most races, ensuring that they often have a numbers advantage and making colonisation necessary.



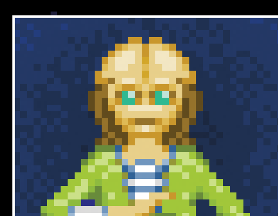
BULRATHI

■ The Bulrathi look like bears and are just as dangerous. They get a huge +25 bonus to ground combat, making them excellent at invading planets and hard to dislodge from their own.



SILICOID

■ The rocky constitution of the Silicoids allows them to thrive where others falter – they're slow to reproduce, but dead, toxic or inferno planets don't bother them.



PSILON

■ They might be unfeeling, but the Psilons are magnificent. Their intellect gives them a huge 50 per cent bonus to research, and their development choices are less restricted.



» [PC] Designing new ships is an important part of developing your empire in *Master Of Orion*.



» [PC] Some planets contain the ruins of ancient civilisations, which left behind technological artefacts.



IN THE KNOW

» **PUBLISHER:** Microprose

» **DEVELOPER:** Simtex Software

» **RELEASED:** 1993

» **PLATFORM:** PC / Mac



DEVELOPER HIGHLIGHTS

MASTER OF MAGIC
SYSTEM: **PC**
YEAR: **1994**

1830: RAILROADS & ROBBER BARONS
SYSTEM: **PC**
YEAR: **1995**

MASTER OF ORION II: BATTLE AT ANTARES
(PICTURED)
SYSTEM: **PC/Mac**
YEAR: **1996**

▶ variations for the different jobs – the spy and the scientist and stuff, George and I both did a lot of that. The three of us had to do all that art in the space of three months, maybe? It was short."

One of the major changes made was to the races, which were interesting in gameplay terms but had been bland in terms of art and character. While the likes of the Klackons and Meklar were considered distinctive enough and just needed new art, many of the more heavily-altered races were animal-based. "That's a standard science fiction trope, and I understand the value of that trope because these animals have values attached to them – so if you're playing a cat race, you automatically get an expectation of what they're going to be like," Jeff tells us. "But at the same time this struck me as a hard science-inspired game, so when we were working on the look for the animal-based aliens, I wanted to bring alien features to them."

"I was kind of inspired by the Kzinti from Larry Niven's *Ringworld* series, who are cat aliens but they have alien features that clearly mark them as not being Earth cats that evolved to be able to go into space," Jeff explains. "You can see this in some of the details, the strange eyes, the strange ears, unusual numbers of fingers, the ways their hands are jointed and stuff – just little touches to make sure you knew you were looking at an alien." Along with these artistic changes came more distinctive names – the Avians became the Alkari, the Felines became the Mrrshan, and so on.

Animal races weren't the only ones to receive a facelift, as the Mentats became the Psilons. "On races like the Psilons, those were obviously inspired by your stereotypical 'Grey' aliens, but once again I was looking for ways to transcend the stereotypes," Jeff recalls. "So the Psilons as they were ultimately depicted are still clearly inspired by Grey aliens but we gave them the extra set of arms, the forehead gem and other little touches to make them themselves."

For other designs, Jeff drew upon his own experiences. "With the Silicoids, I'm living in Austin, Texas, which is a very geologically interesting area. If you go walking down parks and nature paths, one of the common things you can find here are geodes, which are rocks with a crystal formation inside. I thought it'd be really cool if the Silicoids were geode creatures, where the outer crust is kind of boring and rocky-looking, but inside it's interesting crystalline stuff, and it's easy to imagine that those crystals are doing something that makes them be alive."

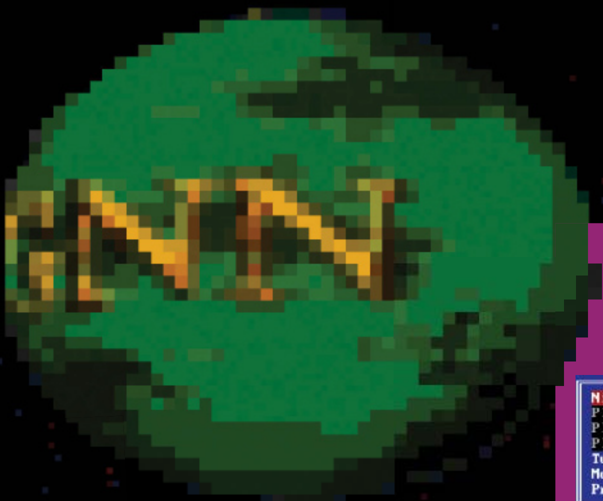
As well as alien races, Jeff was called upon to design ships. "There were eight different colours that the player could choose from when they pick their empire – the colour determined which set of ships you were going to get," he explains. "My objective was to make a few ships of each different size, and have some kind of stylistic theme that ran through all the ships of that colour so that it looked like they belonged together in the same army. We had a wedge-shaped fleet of ships, a sphere-based fleet of ships, kind of a *Star Trek*-y disc with engines, the blocky, clunky ones, and that's how I did it."

The other big limitation was technical restrictions, as he explains. "We didn't get animation – the game having essentially been completed already, I wasn't in a position to ask for more functionality. Even rotation – if you play the ship battles in *Master Of Orion*, your ships are always pointing the same way. It would have been the easiest thing in the world to let them turn so they're at least kind of pointing in the direction of what they're doing, but we didn't even get that."











Even getting the art into a workable digital form proved to be challenging. "There were scanners available back in those days, but not ones that I had easy access to," Jeff recalls. "The way that Bill Willingham's drawings got into the game is I faxed them over phone lines to my PC , and then brought them into Deluxe Paint. That was the way I could scan things back in the day. Things have changed a lot!" With the changes complete from a visual side, Microprose brought in David Govett to compose new music for the game to replace the less polished tunes of *Star Lords*, and changed the title to *Master Of Orion* – so named for the game's most valuable (and thus heavily-guarded) planet.

While Microprose worked on the game's aesthetics to get it up to scratch, journalist Alan Emrich took a keen interest in the game and gave an enthusiastic preview in *Computer Gaming World*, in which he coined the 4X term to describe the key goals of the game – explore, exploit, expand and exterminate. Behind the scenes, he was suggesting ways in which the game's interface could be improved, for example by alerting players when they had reached production limits, and these improvements are responsible for the few differences in gameplay between *Star Lords* and *Master Of Orion*.

Reception for *Master Of Orion* was positive upon its late 1993 launch, with *Computer Gaming World*'s reviewer Martin E. Cirulis calling it "a definite Game Of The Year candidate," and remarking that it was "one of those ▶

4-RUNNERS

The 4X description was coined for Master Of Orion, but these predecessors show that it wasn't the first game in the genre…



◀ REACH FOR THE STARS
1983

■ Written by Roger Keating and Ian Trout of Australian developer SSG, *Reach For The Stars* is recognised as being the first-ever published 4X game. Much like *Master Of Orion*, *Reach For The Stars* is set in space and features many of the same themes that go with the setting, but lacks colourful alien races.

STRATEGIC CONQUEST ▶
1984

■ Based on the wargame *Empire*, *Strategic Conquest* takes on a modern military theme with players utilising tanks, aircraft and naval vessels to conquer the world. The game was updated frequently for Apple computer owners from its initial release in 1984 to its final version under Delta Tao in 1998.





◀ SPACEWARD HO!
1990

■ Often updated since its 1990 launch, the jovially-named *Spaceward Ho!* was one of the contemporaries that *Master Of Orion* was compared to when it was released. The multiplayer aspect of the game made it popular, as did the hat-wearing planets – surely a unique feature in videogames. It's now available on mobile devices.

CIVILIZATION ▶
1991

■ Sid Meier's enormously popular series remains probably the best-known example of 4X strategy games today, as exemplified by its popularity in our readers' top 150 games poll. Jeff Johannigman originally pitched *Master Of Orion* to Alan Emrich as being "*Civilization* in space" - it's not hard to see why.



REBOOTING A CLASSIC

How Wargaming has worked with the original team to revive a strategy pioneer



There's a lot to be said for the ability of fans to keep games alive in general, but it definitely helps when they're in charge of major game developers themselves – and that's how *Master Of Orion* ended up with Wargaming, as CEO Victor Kislyi is a major fan of the game and even credits it with building his business acumen. The company acquired the rights during Atari's 2013 bankruptcy, and this year launched *Master Of Orion: Conquer The Stars* into early access.

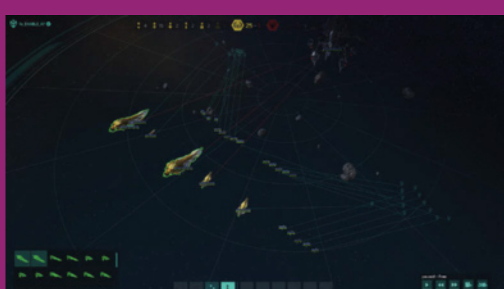
However, rather than being a sequel, the latest game in the series is a reboot. "We're pretty retro ourselves," explains Chris Keeling, director of product vision at Wargaming. "We're changing a lot of things – the interface, the music and the voice acting. If we came along with ten new races, it's not really *Master Of Orion* anymore." It's easy to see Chris' passion for the originals when he speaks about his favourite race. "Back in the day I played the Psilons, because the creative race perk was overpowered and everybody knew it, and you could just dominate with it. In the current game, I've been playing the Sakkra a lot because they expand very quickly, but my actual preference is for the Darlok."

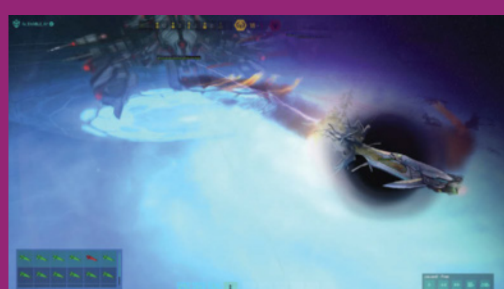
The new game is being developed by NGD Studios, based in Buenos Aires, with members of the original team acting as consultants, including a new orchestral score from David Govett, the composer of the original's music. "Alan Emrich and Tom Hughes who wrote the original strategy guide gave us a lot of feedback on the design," Chris tells us, "especially with super-detailed charts and tables of how algorithms were developed and things." In providing artistic oversight, Jeff Dee has been vigilant in preserving the *Master Of Orion* aesthetic. "Originally we were going to have separate characters for the spymaster, the scientist, and all that stuff," Chris explains. "Each one of them looked like a different Earth bird, and we scrapped all that once he said, 'No, you can't do that.'"

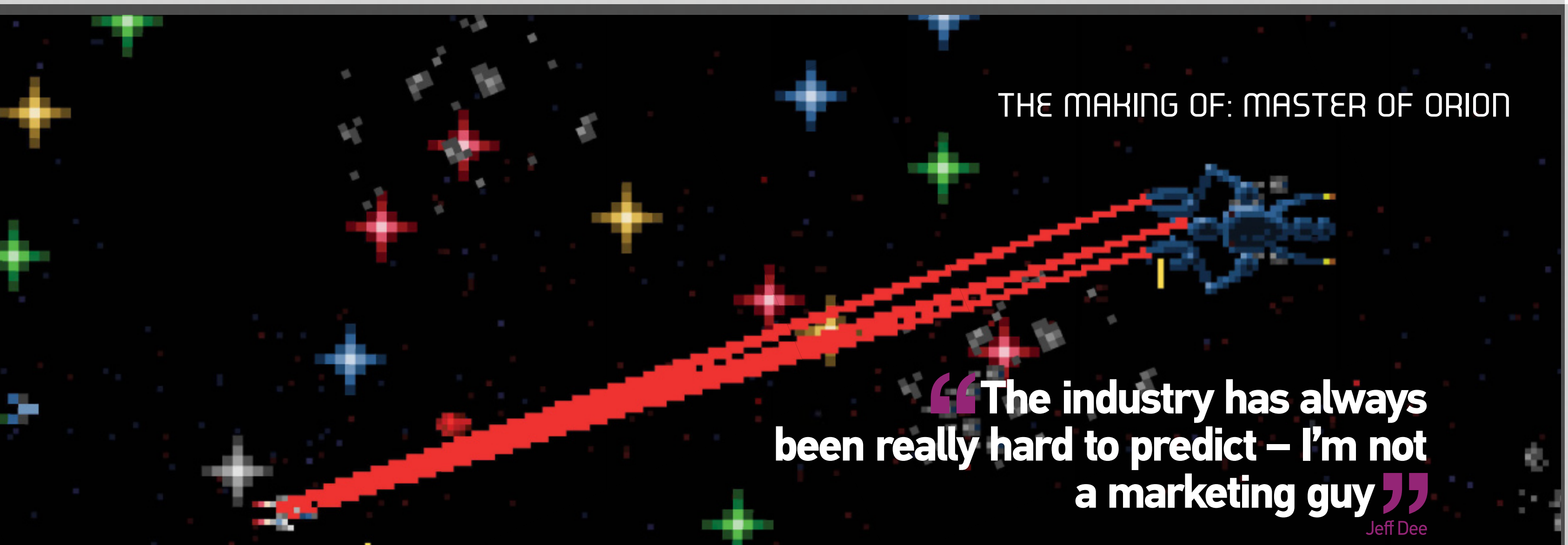
The team has emphasised *Master Of Orion* and its sequel as inspirations for the reboot, sticking to the original ten races and drawing mechanics largely from *Master Of Orion II: Battle At Antares*. However, even the less well-received third game has been examined for contributions: "The things people notice that are from the third one are real-time battles and star lanes, both of which were not done very well in *Master Of Orion III*, but we think they're working pretty well in this game now."

Primarily, the team wants to make *Master Of Orion* – and the 4X genre as a whole – more accessible to today's audience. The game's voice cast is a good example of how the game is geared towards appealing to new players, including popular sci-fi actors such as Mark Hamill, Michael Dorn, Alan Tudyk and Robert Englund. "We kept the depth with all the technologies and stuff, but we wanted to make the interface easier to understand," Chris tells us. "The main thing we wanted to duplicate is that 'one more turn' feeling, and the excitement of not just the big victories, but the little victories," Chris explains. "'My colony's finally big enough to build a battleship, I've conquered all the colonies around me so my own system is safe, or I made a great diplomatic deal.'"

Master Of Orion: Conquer The Stars is currently available via Steam for PC, Mac and Linux, packaged with all three previous games in the series. The game is currently in early access and continues to develop from month to month, with a final release date yet to be determined – recent updates have seen the inclusion of the Silicoid and Darlok races, the introduction of an economic victory condition and the introduction of an espionage system.







> **"The industry has always been really hard to predict – I'm not a marketing guy"**
> Jeff Dee

games where one must actually put effort into finding something inadequate about the game design." Germany's *Play Time* stated that, "The only drawback is the lack of a multiplayer option," a sentiment that was echoed by many other reviewers. PC sales were strong and the game also did well with Mac gamers. It was a surprise for Jeff, who didn't see the success coming. "I had no idea," he confesses. "The industry has always been really hard to predict – I'm not a marketing guy, I don't make that my business!"

The impact of *Master Of Orion* allowed for the production of a sequel, in which Simtex corrected the omission of multiplayer. *Master Of Orion II: Battle At Antares* was a more complex and critically successful game, which is still regarded as a benchmark in space-based 4X games. A series of acquisitions and mergers meant that by the time *Master Of Orion III* arrived in 2003, neither Microprose nor Simtex existed, with the IP owners Infogrames handing development duties to Quicksilver Software. The game was less successful with the press and the public, and the series became dormant for more than a decade.

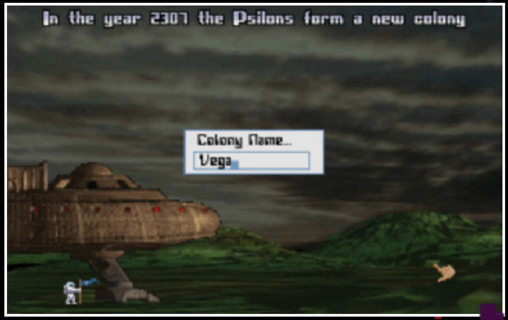
Despite the game's high status at the time, Jeff had never had much experience with fans himself, until recently. "When I was in the industry there was never a big computer games convention in Austin, where I could interact with fans, and since more or less leaving the computer games industry and going back to paper games, I mostly frequent tabletop game conventions. But I did get one opportunity to meet *Master Of Orion* fans face to face, when Wargaming brought me up to PAX in Seattle recently – in this giant crowd, I think maybe three people recognised me from my name badge or something, and came up and opened their hearts to me about how much they loved the game, and that was really gratifying."

Still, even if Jeff's personal experience with fans is limited, the influence of *Master Of Orion* can't be underestimated. While it wasn't the original 4X game, the description has stuck with the subgenre for over 20 years now. Likewise, fans think of the game very fondly – the series' current owner, Wargaming, bought it because its CEO was a devout fan of the original game, and he's far from alone, as projects like *FreeOrion* and sites like The Orion Sector prove. There aren't many games that could be considered ripe for a reboot over a decade after the last sequel hit the shelves, and the fact that *Master Of Orion* was is testament to its enduring appeal.





» [PC] Races prefer certain traits in their leaders – the Bulrathi like aggressive ones, funnily enough.



» [PC] Once you've colonised a planet, it's yours to do with as you please – so long as you can hold onto it.



» [PC] While your fleet management screen isn't tremendously exciting, it becomes an essential tool as your empire expands.



Peripheral Vision

Master System Converter

» PLATFORM: MEGA DRIVE **» RELEASED:** 1989 **» COST:** £29.99 (LAUNCH), £25+ (TODAY)

If you've already invested in a console, the last thing you want is for your games to suddenly become obsolete, and manufacturers have often tried to include backwards compatibility to encourage old owners to upgrade. However, while the Mega Drive was fully compatible with the Master System on a technical level, its 64-pin cartridge slot wouldn't accept the Master System's 50-pin cartridges, never mind the budget Sega Card format. To get around that, Sega introduced the Master System Converter, a simple mechanical adaptor which provided Master System cartridge and card slots, as well as a pause button.

While having to shell out extra cash wouldn't have made a lot of sense for existing Master System owners making an upgrade, it was an excellent option for newcomers to the Sega market – particularly in the early months of the Mega Drive's life. For the price of a single game (and less than half of the price of an actual Master System), you could gain access to a whole library of 8-bit games to tide you over while waiting for more 16-bit hits. Of course, you had to take it off every time you wanted to actually play a Mega Drive game, but that's a minor quibble. *





Master System Converter fact

■ Certain games will only work with the Master System Converter if a Master System controller is used, and *F-16 Fighter* doesn't work at all as it uses a graphics mode that the Mega Drive doesn't support.



ESSENTIAL GAME Phantasy Star

The Mega Drive boasted many brand-new franchises that didn't have the slightest connection to the Master System, but if you were an RPG fan then you probably picked up the *Phantasy Star* games. Japanese gamers eventually got the Master System game on a budget-priced Mega Drive cartridge, but the only way for English-speaking fans to experience the first instalment in the series and complete the quadrilogy was to pick up a Master System cartridge. If you were only interested in Sega's 8-bit console for *Phantasy Star*, the Master System Converter was a mercifully cheap way of accessing it.



GHOULS 'N GHOSTS

Arise Knight Arthur! The dead are abroad and the princess has been taken. Lances will be lobbed, monsters will be mashed, underpants will be aired. As Martyn Carroll discovers, it's all in a knight's work



» [Arcade] Taking the high path is usually the best, if only to prevent nasty things dropping on your head.



» [Arcade] The annoying broken bridges in the second stage result in an unpleasant death.

Like many a macabre tale, *Ghouls 'N Ghosts* opens on a dark and stormy night. Ominous clouds gather and lightning pierces the gloom, but Arthur fears not. He bounds through the boneyard on his quest to save his loved one and overthrow the forces of darkness.

There's a definite scene of déjà vu hanging over this scene. In *Ghosts 'N Goblins*, released three years earlier in 1985, Arthur found himself in a similar cemetery, knee-deep in the undead, with the same noble quest ahead of him. Even the soundtrack was the same, albeit in an earlier arrangement. The difference was the visuals. Arthur and the enemy sprites were now larger and more detailed, allowing series director Tokuro Fujiwara to better realise his aim of creating a game filled with cartoon-quality characters. But it was the background graphics that really made the difference. Gone was the sparse scenery of the original, replaced by beautifully-drawn backdrops that scrolled on a separate layer, creating a convincing parallax effect. Add in the visual tricks, like the first stage's stormy weather, and the result was a platformer filled with atmosphere.

The improved aesthetics were down to Capcom's CPS-1 hardware. *Ghouls* was the second title to use it – shooter *Forgotten Worlds* being the first – and the custom 68000-based 16-bit system gave the 2D visuals a clear boost. In contrast the original game ran on a 6809 CPU, the same processor used in the Commodore SuperPET and Tandy CoCo. If the original was a 16mm movie then *Ghouls* was the 35mm ▶

"The improved aesthetics were down to Capcom's CPS-1 hardware. Ghouls was the second title to use it"

PIXEL PERFECT

The game's gorgeous sprites, laid bare for your viewing pleasure



DEVELOPER Q&A

Programmer Ste Ruddy reflects on his cracking Commodore 64 version



How did you get to work on the conversion?
Software Creations was doing a fair bit of work for US Gold and it was really just the next game I got following on from *LED Storm*. It was my last C64 game as I was doing more and more NES work.

Had you played much of the game beforehand?
Sadly not. I'd played *Ghosts 'N Goblins* to death but I hadn't seen *Ghouls 'N Ghosts* in the wild until well into the development of the game. By which time I was quite good at it, although not keen on paying to play!

How much help did you receive from Capcom?
We didn't get any, really. We received a board from US Gold and that was it. Fortunately it was one with a debug mode, so I do remember Andy Threlfall [the graphic artist] spending quite a lot of time staring at the test graphic pages. Apart from that it was just a case of playing the game over and over. It was a hard job but someone had to do it.

What were the trickiest parts of the game to replicate?
Well, technically, it was a full-screen colour scroll. Chasing the raster to update the colour was always fun, with an optimised sprite multiplexor supporting some of the massive sprites that the game used. But, to be honest, just fitting the sodding thing into the memory of the C64 was probably the trickiest part of the port.

What aspects of the port are you most proud of?
Getting a playable interpretation of the arcade *Ghouls 'N Ghosts* using a joystick.

And which parts do you wish you could improve?
The most annoying thing was the fact that we were rushed right at the end to get it out. This meant some silly bugs slipped through. I'd have loved just a couple more weeks to fix 'em.

How do you feel the port holds up today?
I think it's a good interpretation of the arcade game. The graphics are good, it's playable and has awesome music. That said, being a programmer, I look at it and think of all the things I could do better now.



» [Arcade] Arthur goes tongue surfing in the tricky third stage. Try not to get chomped.



» [Arcade] Arthur lights up the screen, and sends the dead scampering, with a charged-up magic attack.

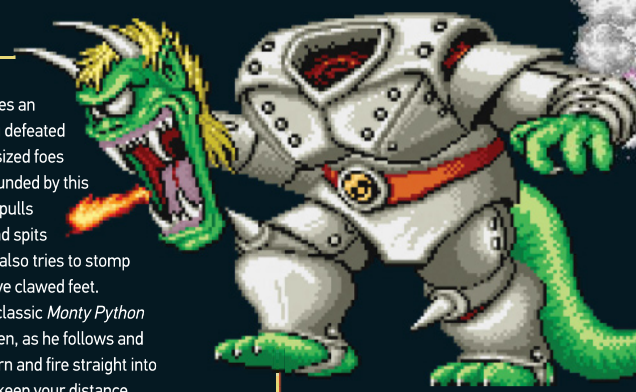
▶ remake – *Evil Dead* versus *Evil Dead 2*, if you like. *Ghouls* was also able to maintain its artistic flair throughout the game. The original became quite drab and samey once you ventured underground and into the castle, yet the follow-up continued to delight with its increasingly imaginative stages (the third stage, Baron Rankle's Tower, where Arthur had to traverse wiggly gargoyle tongues, was a highlight). And then there were the bosses. Who could forget Shielder, the first stage's green-skinned guardian who held aloft his own fire-spitting skull? Screenshots of this encounter were common in magazines, showing how the boss dwarfed poor Arthur. In action it was even more impressive as Shielder stomped around the screen, arms waving and tail swishing. The new bosses were so imposing that Astaroth, the chief baddie from the first game, was relegated to mini-boss status. His crown was assumed by Lucifer, a mega-boss who literally filled the screen.

As in the original game, to reach the final boss you had to play through the game *twice* – only then, providing you collected the powerful Psycho Cannon

BOSS RUSH

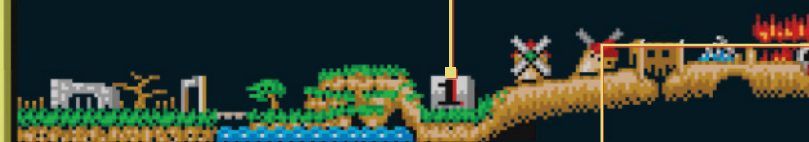
The chief architects of evil and how to topple them

SHIELDER

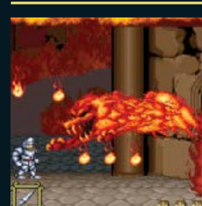


■ The game's first boss certainly makes an impression. Having defeated dozens of regular-sized foes you're suddenly hounded by this snarling giant who pulls off his own head and spits fireballs at you. He also tries to stomp you with his massive clawed feet.

How to beat it: In classic *Monty Python* style: run away! Then, as he follows and lowers his head, turn and fire straight into his face. Basically, keep your distance.



CERBERUS



■ This boss leaps from the flames that engulf the end of the second stage. The 'Hound Of Hades' blazes across the screen, leaving behind a fiery – and deadly – trail. He also conjures up deadly fireballs that rain from the sky. All of this ensures you receive a toasty reception.

How to beat it: The best technique is to crouch in the centre of the screen (to avoid his leap) and then hit him when he lands. Don't forget to dodge the falling fireballs.

weapon on your second run-through, could you finally face Lucifer. For many players the prospect of finishing the game just once was a distant dream - the series is famous for its notorious difficulty level and *Ghouls* only enhanced that reputation. As before, randomly-spawning enemies made life extremely tough and it wasn't possible to change your direction when jumping, so accidentally leaping to your doom was a common occurrence. Perhaps the biggest annoyance was the weapon system which was carried over from the first game. You couldn't drop and swap your weapons, so if you unintentionally picked up one of the lesser weapons you were stuck with it until you found an alternative.

Ghouls did bless Arthur with some new abilities. You could now shoot arrows vertically as well as horizontally – perfect for targeting flying nasties. The game also introduced the magical gold armour, which, once worn, let you unleash special charged-up attacks. These additions did make the game slightly easier, but make no mistake, it was still *really bloody hard*. Perseverance paid off, however, as the warped stages

> **"The most annoying thing was the fact that we were rushed right at the end to get it out"**
> Ste Ruddy

and outlandish bosses that lay ahead were ample reward. Plus, anyone who could one-credit *Ghouls* was instantly crowned King Of The Arcade.

The game debuted in Japan in December 1988 under its original title of *Daimakaimura* (Great Demon World Village). The following month it arrived in the west at London's ATEI show where Newsfield's Robin Hogg played it and considered it to be one of Capcom's finest games. "*Ghouls 'N Ghosts* is a considerably stronger title than nearly all other Capcom games so far," he reported in *The Games Machine* magazine. "The graphics have to be seen to be believed and the thoroughly addictive gameplay should see the crowds flooding to the arcades." ▶



» [Arcade] Arthur, clad in his Magic Armour, takes on Astaroth and his clone.

GASSUTO

■ As the name suggests this boss is a swirl of hot air. At its core is an evil eye that keeps you forever in sight. Occasionally the eye will get mad and emit lightning that leads to a brief storm. The boss also swells in size, making it more difficult to avoid.

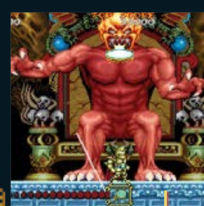
How to beat it: This boss will basically circle you so just keep hitting the eye as it goes around. A good projectile weapon, such as the dagger or discus, is required.

ASTAROTH

■ Regular series boss Astaroth returns to bother Arthur towards the end of the fifth stage. He will try and frazzle you with flames emitted from either of his grinning mouths. As he's a master of illusion you also have to beat two 'clones' a little later on in the brawl.

How to beat it: As with Shielder, stay back and just keep jumping up and hitting him in the head. If he gets too close crouch quickly to avoid his flame attack.

LUCIFER



■ The final, *final* boss of the game can only be confronted if you're carrying the Psycho Cannon (available on your second playthrough). The bad-tempered Lucifer doesn't budge from his throne but he'll attempt to crush you underfoot and zap you with his laser fingers.

How to beat it: Don't be deterred by his size. Stand just to the right of his left foot and blast the Psycho Cannon into his face. A dozen or so hits will finish the job.

OHME

■ The biggest boss in the game is several screens in length and appears to be some kind of rotting fish beast. Ohme doesn't actually move but its bloated body secretes maggots and worms that try and prevent you from destroying their disgusting host. Eww.



How to beat it: Avoid the maggots and just try to concentrate on shooting the boss's protruding innards. Begin with the middle one and then work outwards.

BEELZEBUB

■ Ostensibly the final boss, this giant fly blocks the exit to the fifth and final stage. It continually changes between his true form and a swarm of smaller flies that buzz around the screen. It will also fling green blobs of death at you, plucked straight from its abdomen.

How to beat it: Run to avoid the swarm and then hit it hard when it forms into a fly. Using the dagger's doppelganger magic will make quick work of this one.

CONVERSION CAPERS

How the various home versions measured up



ZX SPECTRUM

■ Topping Elite's Spectrum version of *Ghosts 'N Goblins* wasn't going to be easy but Software Creations managed it, just. There isn't much colour or background detail on display but all of the stages are here and it plays really well. The 128K version is the one to go for, as there's no annoying multi-load and it features Tim Follin's excellent AY tunes and effects.



COMMODORE 64

■ This C64 game is held in high regard and it's easy to see why – it's a conversion masterclass. The graphics, the animation, the attention to detail: everything about it is impressive – and, of course, Tim Follin's SID tunes are simply out of this world. It's hard to imagine how Software Creations could have executed this any better. It's real 'lightning in a bottle' stuff.



MEGA DRIVE

■ This was one of several early titles that highlighted the Mega Drive as a capable platform for coin-op conversions. It's not arcade perfect – the animation is a little choppy and some visual tricks are missing – but it's nonetheless a very fine version that unsurprisingly became an import favourite. The 'practice' mode is a nice addition, resulting in less hair-tearing.



ATARI ST

■ It took Software Creations 12 months to create the ST version and it was time well spent. The colours are muted and the scroll isn't as smooth as you'd hope but it's a faithful conversion. Once again Tim Follin worked his audio magic, producing a series of original compositions alongside arrangements of the coin-op's tunes.



AMIGA

■ Arriving a few weeks after the ST release, Software Creations went back and enhanced the graphics for the Amiga version. Compare the screenshots: the Amiga version features a taller display and includes more detail, such as the clouds and background trees. The only thing missing is the parallax scrolling effect.



AMSTRAD CPC

■ The CPC version is much more colourful than its Spectrum counterpart, but it's let down by its scrolling, being the only home version to 'push scroll' when you reach the edge of the screen. Not having Arthur fixed in the centre means it is easy to run into nasties when the screen scrolls, and it's worse when climbing as the screen scrolls horizontally then vertically.

MASTER SYSTEM

■ Sega did an admirable job of replicating the game on its 8-bit Master System console. Movement is quite slow but this has the benefit of making the game easier. It also features unique 'shops', accessible via certain chests, that let you upgrade Arthur's helmet, body armour and boots. This adds a splash of strategy and makes up for any technical shortcomings.





SUPERGRAFX

■ *Ghouls 'N Ghosts* was one of just seven titles released for the enhanced PC Engine. The sound and graphics don't quite match the Mega Drive version, but the hardware's extra memory is used to improve the animation. In short, the game runs better on the SuperGrafx compared to the Mega Drive. It also includes the full opening scene from the original coin-op.



SHARP X68000

■ The Japanese computer hosts many arcade-perfect conversions and *Ghouls* is a great example of this. It may have arrived six years after the coin-op but if you run them side by side you'll not be able to tell them apart. There's also a bunch of options to play around with, including multiple difficulty settings ranging from very easy to, gasp, very difficult.

PLAYSTATION/SATURN

■ The first three games were brought together for the second *Capcom Generations* collection which was subtitled *Chronicles Of Arthur.* In addition to arcade perfect ports there's a fascinating library featuring game history, original artwork and playing tips. Prior to the later *Capcom Classics Collection* this was the must-have compilation for fans of the series.



SPOOKY SEQUELS

AKA 'The Further Adventures Of Knight Arthur In The Demon Realm'



SUPER GHOULS 'N GHOSTS

» **PLATFORM:** SUPER NINTENDO

» **YEAR:** 1991

■ SNES owners rejoiced when Capcom announced that the third game in the series was a Nintendo-exclusive title. It was essentially more of the same, with Arthur blessed with new weapons and abilities, including the all-important double jump. The graphics and animation were great, although the game suffered from slowdown when the action intensified.



MAKAIMURA

» **PLATFORM:** WONDERSWAN

» **YEAR:** 1999

■ This often-overlooked fourth entry was released exclusively in Japan for the monochrome WonderSwan. Despite the title, and the return of enemies from the earlier games, this was a distinct entry in the series that featured imaginative stages and bizarre bosses. It was also brutally difficult, as you'd expect, without the double jump to save your skin.



ULTIMATE GHOSTS 'N GOBLINS

» **PLATFORM:** PLAYSTATION PORTABLE

» **YEAR:** 2006

■ Following the two *Maximo* spin-offs Capcom returned to the series roots with a classic 2D entry that benefited from wonderful 3D-style backgrounds. Arthur was now more athletic than ever, being able to block, dash, climb and even fly. His task was no easier, however, as the trademark difficulty returned with a vengeance (though there was a novice mode).



GHOSTS 'N GOBLINS: GOLD KNIGHTS

» **PLATFORM:** MOBILE/IOS

» **YEAR:** 2009

■ Arthur returned for this new two-part challenge – and he wasn't alone, as you could now choose to play as different knights with unique abilities. The gameplay was largely unchanged, though it was more forgiving than before (a good job, given the touchscreen controls). Various 'cheats' could also be purchased for real-world money. Hmm…

▶ *Ghouls* and other Capcom titles, such as *Strider* and *Final Fight*, helped establish the CPS-1 board as an arcade mainstay. As the titles were 2D and sprite-based they lent themselves to home conversions and many followed. The first conversion of *Ghouls* hit the Japanese Mega Drive in August 1989. It was coded by Yuji Naka, who would go on to head up Sonic Team, and was admirably close to the coin-op (Fujiwara once joked that the Mega Drive version even featured the same bugs as the original, suggesting that the 68000 code was ported to some degree).

In Europe US Gold picked up the *Ghouls* licence, as part of its ongoing deal with Capcom, and commissioned Software Creations to develop it for home computers. The 8-bit releases were generally very good (the C64 version in particular being a highlight), with the only real omission being the final battle with Lucifer (these versions ended when you swatted Beelzebub, the giant fly, although the Spectrum version did throw up an extra platforming section which led you to the princess). The ST and Amiga versions were both solid titles and they did feature the Lucifer fight, with the only difference being that you didn't have to battle through the game again to challenge him. All of these versions were enhanced by Tim Follin's fantastic audio work.

Versions for the Master System and the PC Engine SuperGrafx followed. There was no version for the Super Nintendo – it instead received Arthur's third outing, *Super Ghouls 'N Ghosts*, as the series made the jump to home systems (see box out). There was also the *Gargoyle's Quest* series for Nintendo systems, where one of the flappy little demons that menaced Arthur became the protagonist. The entertaining 3D spin-off *Maximo* was released for PlayStation 2 in 2001 and this was followed by a sequel.

In 1994, six years after the arcade debut of *Ghouls 'N Ghosts*, the first arcade-perfect conversion arrived on the Sharp X68000 Japanese computer. Ports for the PlayStation and Saturn arrived in 1998 as part of the *Capcom Generations* series that also included the first and third games in the series. The games also appeared on *Capcom Classics Collection* for PS2 and Xbox in 2005, and PSP the following year. *Ghouls* was absent from the recent *Capcom Arcade Cabinet* collection, raising the possibility that Capcom has future plans for the game. Hopefully, Arthur's adventure isn't over just yet… ✱



» [Arcade] Excuse me! The party gets out of hand as the end of the night draws near.



» [Arcade] Watch out for the giant mud hands as you navigate stage four's slimy slopes.



» [Arcade] The ominous cloud and question mark telegraph that Arthur's quest isn't over.



» [Arcade] This cool doppleganger is one of the better power-ups to appear in the game.


25TH ANNIVERSARY FATAL FURY
FATAL FU
TIME
COUNT FRANCO BASH
1P- 133202
TIME
HWA JAI
CREDIT 00
P1
KIM KA
SINZAN
LEVEL
CREDIT



SNK is renowned as one of the world's most prolific fighting game developers, and it all started with this back-alley brawler. Nick Thorpe talks to Yasuyuki Oda to find out why the series remains so fondly remembered…

There aren't many games upon which legacies are founded, but *Fatal Fury* is undoubtedly one of them. When you think of SNK and its Neo-Geo hardware, it's almost impossible to avoid thinking about fighting games – and that's been true for decades. Without *Fatal Fury*, the company's debut entry in the genre, it's entirely possible that SNK simply wouldn't be the company that we know today.

The story of *Fatal Fury* begins with the arcade fighting pioneer Takashi Nishiyama, who had joined SNK after creating *Kung Fu Master* at Irem and *Street Fighter* at Capcom. At SNK, Nishiyama designed a spiritual successor to *Street Fighter*, a one-on-one fighting game titled *Fatal Fury* (and in Japan, *Garou Densetsu* – literally '*Legend Of The Hungry Wolf*'). The game focused on the brothers Terry and Andy Bogard, as well as their friend Joe Higashi, as they fought to avenge the murder of their father at the hands of the crime lord Geese Howard. In order to do that, they had to fight through an array of unusual combatants in South Town's *King Of Fighters* tournament.

In terms of gameplay, *Fatal Fury* innovated the use of a two-line battle system. Fighters could jump back and forth between two different planes, making good use of the Neo-Geo's sprite scaling capabilities to convey the shift. "At that time, 3D games were not the mainstream," notes Yasuyuki Oda, a veteran *Fatal Fury* developer who is currently working on *The King Of Fighters XIV* at SNK. "Adding another fighting background and solid expressions were factors that had made the *Fatal Fury* series such a success."

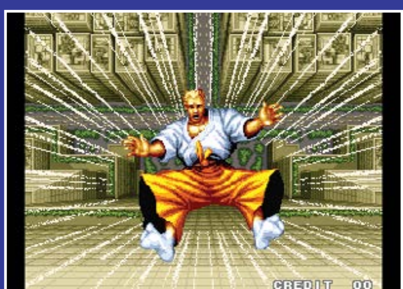
In most other regards, it was more similar to the original *Street Fighter* than Capcom's own *Street Fighter II*, which had arrived earlier in 1991. Where *Street Fighter II* was geared towards competitive two-player action and had a fighting system geared towards combos, *Fatal Fury* relied on accurately-timed special moves and focused on competition against the computer rather than other players. Inserting a credit during gameplay wouldn't cause a new one-on-one fight, instead pitting both players against the enemy before they settled their own differences. What's more, of the game's 11 ▶



» [Neo-Geo] Terry's Burn Knuckle special attack has stayed with him for decades now.



» [Neo-Geo] *Fatal Fury*'s sprite work was excellent – just look at Hwa Jai's eyes pop!



» [Neo-Geo] Geese Howard's plunge from the top of his own tower is a memorable and oft-revisited scene.

"I believe the 'atemi-nage' (counter grab) system influenced the fighting game genre"
Yasuyuki Oda

▶ characters, only three could be controlled by players and the rest were reserved for the computer.

Compared to the combatants of other games, the *Fatal Fury* cast stood out. Terry Bogard's street clothes stood in stark contrast to the martial arts attire of so many other fighting game characters, to say nothing of more outlandish designs like Duck King. "We believe that the characters that did not look like actual fighters had an impact," says Oda. Likewise, many boasted unique gameplay traits – Richard Meyer could hang from the ceiling of the Pao Pao Café, Tung Fu Rue could transform from a diminutive man into a hulking, muscular beast and Billy Kane used a weapon.

One of the most memorable was the game's final boss, Geese Howard, who is as iconic of the series as its heroes. Unlike other characters, Geese was able to anticipate your attacks and deliver devastating responses. "I believe the 'atemi-nage' (counter grab) system influenced the fighting game genre later," says Oda – and indeed, many 2D and 3D fighting games have incorporated such attacks. However, it wasn't just his unique fighting style that made him popular – his design was memorable too, as he sported the unusual clothing choice of an aikidogi. "In his first appearance in *Fatal Fury*, he was the stereotype of a '*Godfather*'-type character with some influences from the Japanese culture," Oda notes. "Then, players were able to select him in *Fatal Fury Special*, and he gained a stable popularity. Geese and Billy have always been created by designers specialised for these two characters. We believe that their passion has influenced these characters' charisma."

Fatal Fury arrived towards the end of 1991 and was met with a positive reception. "SNK have done themselves absolutely no harm in releasing this brilliant feast of fighting," opined Paul Rand in *C&VG*'s review of the Neo-Geo version, urging readers to "get your parents to remortgage the house and go get it." Home conversions followed in 1992 and 1993 for the Mega Drive, SNES and Sharp X68000, all of which were well regarded.



Having done well, *Fatal Fury* earned a sequel which arrived at the tail end of 1992. *Fatal Fury 2* saw the King Of Fighters tournament expanding across the world thanks to Wolfgang Krauser, the new antagonist and Geese Howard's half-brother. Many of the first game's veterans were injured at Krauser's hands, so few characters returned. The Bogard brothers and Joe Higashi naturally did, and they were joined by Big Bear (the unmasked, and rather friendlier, Raiden), now a playable fighter. Four more playable characters joined the roster too – the portly Cheng Sinzan, elderly Jubei Yamada, taekwondo expert Kim Kaphwan and the series' first female fighter, Mai Shiranui. Krauser wasn't the only new boss either, with Laurence Blood and Axel Hawk joining Billy Kane as lackeys of the bad guy.

In gameplay terms, *Fatal Fury 2* revamped the two-line fighting system by allowing players to switch planes at will using the A and B buttons, adding an extra element of strategy to fights. Fighters also had a new class of move at their disposal, the 'Desperation Move' – a powerful attack which could only be activated when the player was low on life. "In Japanese anime and manga culture, having Desperation Moves above Special Moves was a natural flow," explains Oda, and it makes sense – we've definitely seen anime characters unleash their biggest attacks when on the brink of defeat. "Once we made sure to have enough memory and time to implement them, we





DID YOU KNOW?
Michael Max is the only character from the original *Fatal Fury* cast that has yet to appear in a *King Of Fighters* game.





» [Neo-Geo] *Fatal Fury Special* was the first game to allow players to harness Geese Howard's awesome power.



included Desperation Moves in *Fatal Fury 2*." However, these weren't a *Fatal Fury* innovation, as Oda is quick to remind us. "*Fatal Fury 2* was not the first game in the fighting game genre to feature Desperation Moves, it was *Art Of Fighting*."

Fatal Fury 2 was strongly received, and made its way to a greater variety of home formats than the previous game, with PC Engine CD and Game Boy versions alongside the Mega Drive, SNES and Sharp X68000 versions. However, by the time most of those versions had been released, the next game was already in arcades – and while it was an update of *Fatal Fury 2*, it was a watershed moment for the series. "*Fatal Fury Special* was the first SNK fighting game to take account of versus battles," explains Oda. "The fighting game genre was about to become mainstream in the Japanese arcade game market at that time and *Fatal Fury* rode that wave as well. In addition to this, the game had a huge roster for the time as well as stages and sound effects/music of high quality. Those factors definitely gave players a strong impression."

The main feature of the update was a playable character roster that had almost doubled compared to *Fatal Fury 2*, as the four boss characters became playable and Tung Fu Rue, Duck King and Geese Howard returned to the roster. New backgrounds were added for the new fighters too, adding the likes of Tung Fu Rue's mountain stage to iconic *Fatal Fury 2* stages set on trains and rafts. Greater support for combos was also added, bringing the fighting system closer to other games of the time. However, the most attention-grabbing addition was a character from a completely different game entirely.

"Bringing Ryo Sakazaki to the *Fatal Fury* Series from *Art Of Fighting* was also great idea," Oda says. Included as a hidden final boss for players who managed to beat the game without losing a round, Ryo's appearance paved the way for the later *King Of Fighters* series by pioneering the fighting game crossover. However, keeping the inclusion under wraps proved problematic for SNK. "Although we were planning to keep Ryo Sakazaki's appearance secret until the game release, Ryo was announced on a huge screen at Tokyo Game Show," recalls Oda. "That moment was too awkward for me…"

Testing the game wasn't all smooth sailing, either. "We failed once in the difficulties' settings, and we needed to carry out some playtests again," says Oda, but when it finally received its full release in September 1993, *Fatal Fury Special* reaffirmed the series' place in the upper tier of fighting games. The game later made its way to the SNES, PC Engine CD, Mega-CD, Game Gear, Sharp X6800 and FM Towns, and really marked the peak of *Fatal Fury*'s mainstream popularity – as well as the numerous home conversions, *Fatal Fury* even received an animated movie in 1994.

The next game in the series wasn't quite as well received, as Oda explains. "*Fatal Fury 3*'s development was stopped due to the Great Hanshin earthquake, and then we had no other choice but to release a game of a lower quality than expected." *Fatal Fury 3: Road To The Final Victory* returned the game's setting to South Town, with fighters now out in search of the mysterious Jin scrolls, mysterious artefacts that are said to ▶

DID YOU KNOW?

Lao's first appearance was getting beaten up in the intro to *Real Bout Fatal Fury 2*, before becoming playable in *Fatal Fury: First Contact*.



» [Neo-Geo] These spectators form a makeshift barrier, preventing Jin Chonrei from falling on the train tracks.

CROSSOVER CLASHES

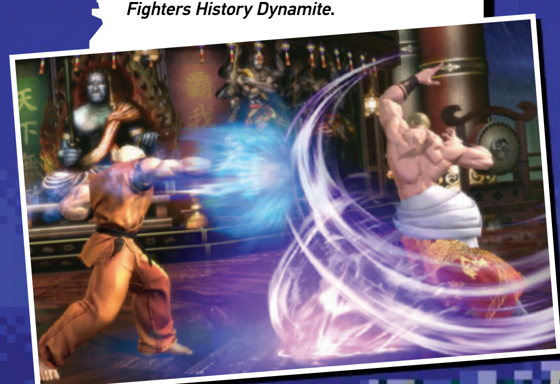
Fatal Fury's characters have popped up all over the place…



***Fatal Fury*'s role in the wider world of SNK fighting games was established pretty quickly following the release of the original game. The first game in the *Art Of Fighting* series established its setting as South Town, and the two series began to cross over more frequently – *Fatal Fury Special* featured a guest appearance from *Art Of Fighting*'s Ryo Sakazaki, and a young version Geese Howard was the hidden boss in *Art Of Fighting 2*.**

These crossovers would form the inspiration for *The King Of Fighters*, a crossover series which continues to this day, drawing from *Fatal Fury, Art Of Fighting* and a variety of other SNK games. Every game from *The King Of Fighters '94* to *The King Of Fighters '99* included at least one new character from the *Fatal Fury* series, and after a brief break, the trend resumed in *The King Of Fighters 2003*. Even 25 years after it was introduced, *Fatal Fury* is still fertile ground for designers of *The King Of Fighters* series to pick up characters – *The King Of Fighters XIV*, due for release later this year, includes eight characters from the *Fatal Fury* series and will mark the first entry for Tung Fu Rue as part of Team China.

As well as these appearances, *Fatal Fury* characters have been part of other crossover projects, including all four of SNK and Capcom's collaborative fighting games, 2005's *Neo-Geo Battle Coliseum* and the 2006 mobile game *Garou Densetsu Vs. Fighters History Dynamite*.





▶ be obtainable only by the strongest warriors. Terry, Andy and Joe were in the hunt again, but most of the rest of the cast took a break for this quest – only Mai and Geese returned, with another brand-new set of fighters accompanying them. These included five new playable characters, the most popular of whom is Blue Mary, as well as the psychotic sub-boss Ryuji Yamazaki and the brothers Jin Chonshu and Jin Chonrei, who served as the game's final bosses.

SNK revamped the game system again for *Fatal Fury 3*. The big innovation this time was the addition of a third plane for fighting. "The line-sway system is *Fatal Fury Special* was rather for running away than for escaping. That was why we intended to create a system to escape like a real match in martial arts. As a result, quick-sway and over-sway lines were established as a brand-new system," explains Oda. "However, those systems were too complicated and not impressive enough. They worked better in the *Real Bout* series," he adds. Indeed, the new system imposed strict limits – players couldn't perform jumps or special attacks outside of the central lane. The game also included new 'Hidden Desperation Moves', ultra-powerful attacks which could knock off 50 to 90 per cent of an opponent's health bar. However, they were practically impossible to utilise – not only did they require the player to unlock the move with a code at the beginning of the fight, but then an initialising action had to be performed before the move could be used.

Fatal Fury 3 arrived in arcades in March 1995, but failed to live up to commercial expectations. "While *Fatal Fury 3* received positive impressions for its rendering, the game itself was a failure in terms of business due to its complicated line system, smaller number of characters, Terry's loop combos and useless hidden abilities," Oda confides. *Fatal Fury 3* certainly isn't a bad game to play, but we can see how it is overcomplicated – a problem the fighting genre would have to tackle a lot in the years to come. In the home market, the usual Neo-Geo version was joined by conversions for the Neo-Geo CD, Sega Saturn and PC – a much smaller selection of systems than had hosted *Fatal Fury Special*.

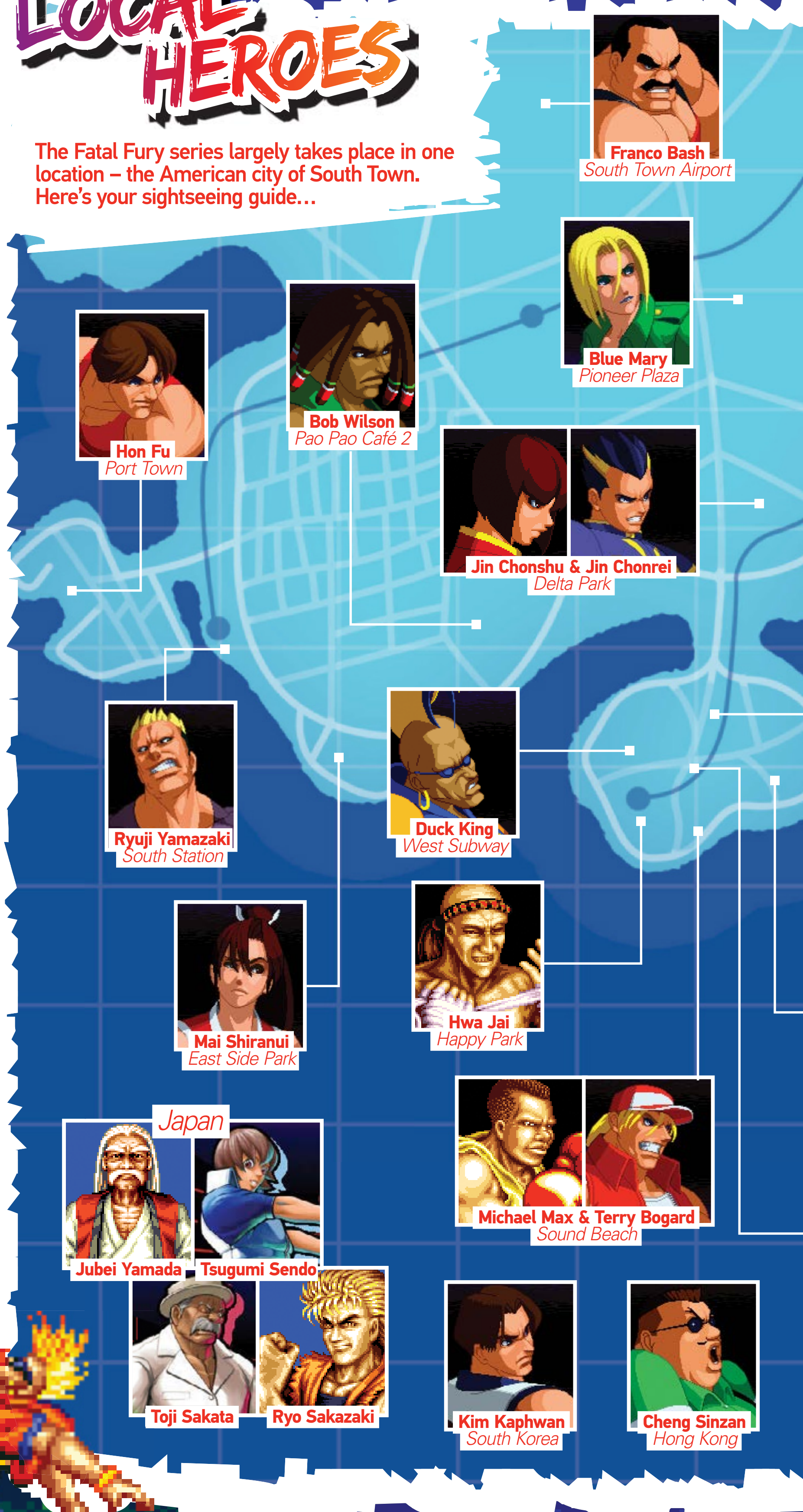
Less than a year later, SNK would right the wrongs of *Fatal Fury 3* with *Real Bout Fatal Fury*. The game's plot goes back to basics: having stolen the Jin scrolls, Geese Howard is in control of South Town once more and holds a new fighting tournament to settle the score with Terry Bogard once and for all. The *Fatal Fury 3* cast returned in full for this climactic rumble, with Kim Kaphwan, Duck King and Billy Kane also returning to the fray. The game's control scheme was simplified, with a ▶

DID YOU KNOW?

Fatal Fury: Wild Ambition was the only Hyper Neo-Geo 64 arcade game to ever be converted to a home console.

LOCAL HEROES

The Fatal Fury series largely takes place in one location – the American city of South Town. Here's your sightseeing guide...







"Fatal Fury 3's development was stopped due to the Great Hanshin earthquake"
Yasuyuki Oda

SPIN-OFF KICK

Fatal Fury has seen its fair share of tie-in projects over the years…



At the peak of its fame in the mid-Nineties, the *Fatal Fury* series was a cultural phenomenon that made its mark on all forms of entertainment. After some limited edition CD soundtracks based on the videogames, *Fatal Fury* broke into the animation world in 1992 with a direct-to-video feature titled *Fatal Fury: Legend Of The Hungry Wolf*. This was based on the events of the original game, with the 1993 sequel *Fatal Fury 2: The New Battle* covering the second game. The success of these features resulted in a theatrical follow-up in 1994, *Fatal Fury: The Motion Picture*, which told an original tale centred on the armour of the Roman god Mars, which is being sought by the villainous new character Laocorn Gaudeamus. Also in 1994, a manga adaptation was created by Ken Ishikawa, best known for cocreating the long-running *Getter Robo* series.

In more recent times, the *Fatal Fury* series has been represented in SNK's pachislot machines – essentially slot machines conforming to Japanese regulations. Four games have been released since 2006, with the most interesting being 2008's *Garou Densetsu Special*, which featured some lovely 2D sprites, and 2014's *Garou Densetsu Premium*, which can be bought for iOS and Android. Now that SNK has withdrawn from the pachislot business, the series' pachislot legacy is continued with Alice, a Terry Bogard fan who originated in the *Fatal Fury* pachislot games. Alice will appear in *The King Of Fighters XIV* as part of the Women Fighters team.



» [iOS] Winning slot spins reward you with extra footage of Terry's story.

dedicated line change button added to make utilising the game's three fighting planes easier, and the use of Desperation Moves and Hidden Abilities was now governed by a super meter at the bottom of the screen, as seen in other fighting games.

The big new addition was ring-out victories, which could be achieved by pushing your opponent over the boundary of the stage. This was a feature that was far more common to 3D fighting games, having been popularised by *Virtua Fighter*, and SNK made sure it wasn't easy to achieve in *Real Bout Fatal Fury*. You usually needed to break a protective barrier to make it happen, but it was often humorous when you managed to pull it off – you could push your opponent into the sea, or knock them into a subway carriage and have them driven away.

With the short development schedule of the game, it was inevitable that there would be an oversight, but we didn't expect Oda to tell us about one particular unintended feature. "When we released *Real Bout Fatal Fury*, we forgot to remove the debug mode," he confesses. "There are still somewhere games in which Desperation Moves can be activated continuously just by doing down, down+C."

Real Bout Fatal Fury was positively received by the fans and press, with *Electronic Gaming Monthly*'s four reviewers awarding the game an excellent 8.75 out of 10. However, by this point the series' position in the fighting hierarchy had changed. "We feel that the game controls and system changes in *Real Bout Fatal Fury* were a huge success," Oda says. "However, those systems were unique and the game was dropped from the fighting games' mainstream. *The King Of Fighters* series which inherited the game controls from *Fatal Fury 2* became the mainstream instead." As well as being released for SNK's home consoles, the game made its way to PlayStation and Saturn.

DID YOU KNOW?

The original *Fatal Fury* featured different special move inputs for Japan and the rest of the world – the Japanese ones prevailed in future games.



» [Neo-Geo] *Real Bout Fatal Fury 2* was a stunning-looking game, despite its short development cycle.

At the beginning of 1997, *Real Bout Fatal Fury Special* became the second 'Dream Match' instalment of the series, which excluded plot and focused just on fighting. According to Oda, this was done "because *Real Bout Special* is exactly 'special', this game has no traditional story as well as *Fatal Fury Special* did not". The game brought the series closer to its roots by returning to the two-line battles, and marked the return of Tung Fu Rue, Cheng Sinzan, Laurence Blood and Wolfgang Krauser. Likewise, ring-out victories disappeared. "The ring-out system in *Real Bout Fatal Fury* received positive impressions from our fans. However, we added later a new system in *Real Bout Fatal Fury Special*," Oda notes. "As *Real Bout Fatal Fury Special*'s focus was versus battles, we decided to remove the system that would lead to accidental falls and not be liked by fans."

While *Real Bout Fatal Fury Special* was another good game, *Fatal Fury* was further from the mainstream than ever. For the first time ever, home conversions weren't released outside of Japan. Unusually the PlayStation conversion featured major additions in the form of a new story, featuring Alfred Airhawk and his mind-bending criminal nemesis White. However, it also featured omissions, including the removal of two-line battles.

In 1998, *Real Bout Fatal Fury 2: The Newcomers* arrived and added the series' first new characters in



DID YOU KNOW?

Fatal Fury's females have often been censored. Mai is frequently targeted, as was Blue Mary's topless win pose from *Real Bout Fatal Fury*.







» [PlayStation] *Fatal Fury: Wild Ambition* wasn't exactly the best-looking 3D fighter on the market in 1999.

three years – Li Xiangfei, a boisterous runaway who loves to eat, and Rick Strowd, a bruiser with Native American heritage. Once again the game featured no storyline. "For *Real Bout Fatal Fury 2,* the development schedule was simply too short," Oda explains. "*Real Bout Fatal Fury 2* was developed with the shortest period in all SNK fighting games." From the outside, it was hard to tell how little time the developers had – the game featured beautiful 2D visuals, and once again retooled the two-line battles by dedicating one plane strictly to escapes. By this point, though, the series was far from the limelight – *Real Bout Fatal Fury 2* was only converted to SNK's own consoles, with the most interesting version being *Fatal Fury: First Contact*. Functionally, it was a cut-down conversion of the game for the then-new Neo-Geo Pocket Color, with a selection of the game's characters and backgrounds reworked for the smaller screen.

> **"For Real Bout Fatal Fury 2, the development schedule was simply too short"** Yasuyuki Oda

As it turned out, there wouldn't be another traditional 2D *Fatal Fury* title, as SNK attempted to refresh the series in two different directions at the same time. "The development of *Fatal Fury: Wild Ambition* and *Garou: Mark Of The Wolves* was at the same time. *Fatal Fury: Wild Ambition* was just released a bit earlier," notes Oda. *Fatal Fury: Wild Ambition* was a 3D fighting game for the Hyper Neo-Geo 64 arcade system, featuring a selection of classic characters alongside two newcomers, a female wrestler named Tsugumi Sendo and the cantankerous elderly gentleman Toji Sakata.

Unfortunately, *Fatal Fury: Wild Ambition* wasn't well received when it arrived in 1999. The ability to escape into the foreground and background was a relatively standard feature in 3D fighting games, and the game's visuals didn't hold up well against contemporaries such as *Tekken 3*. The PlayStation conversion was graphically downgraded, but featured two additional unlockable characters. It was still received poorly by the press. Gamespot awarded the game 6.1/10, commenting that "You really need to be a fan of the *Fatal Fury* series to appreciate this game since the casual passerby would be so much better off with *Tekken 3*." IGN's 4/10 review was damning, stating that "It's just disappointing to see a 2D to 3D conversion turn out to be so horrible, especially when it comes from an awesome lineage."



» [Neo-Geo Pocket Color] Despite the cut-down visuals and character roster, *Fatal Fury: First Contact* was an excellent pocket fighter.

While the move into 3D failed, refreshing the series in 2D was a massive success. "Our fans were bored with the numerous sequels of the *Real Bout* series, and we made the decision to refresh the series with *Garou: Mark Of The Wolves*," Oda tells us. With the exception of Terry Bogard, the entire cast was replaced with new characters – though many were related to the old cast, such as Geese's son Rock Howard and Andy's protégé Hokutomaru. Even Terry received a major redesign. "Terry's design was brand new at the time *Fatal Fury* was released. However, his design was becoming quite classical at the time of developing *Garou: Mark Of The Wolves*," Oda remembers. "We also wanted to show an older and peaceful Terry by changing his outfit."

Garou: Mark Of The Wolves didn't just refresh the cast – as a new technique known as the Just Defend was introduced. By timing your block to coincide with the enemy's attack, you gained a variety of advantages over regular blocking, including quicker recovery, the ability to guard in the air and even a bit of life recovery. Additionally, the Tactical Offense Position (TOP) allowed players to select a certain region of their life bar, within which players gained gradual life recovery, enhanced damage and quicker super meter charging.

Garou: Mark Of The Wolves has become recognised as a 2D fighting classic, thanks to its excellent gameplay and outstanding visuals, which offer some of the most impressive animation on the Neo-Geo. "In *Garou: Mark Of The Wolves*, changing animation frames even by one frame could have led to slowdowns, but we were able to balance the game to its limits," Oda remarks. The game was specifically designed to show this off, too. "We made the character size smaller in order to make the screen look wider, we increased the speed of the characters movement, shortened damage and guard recovery times. Those factors allowed characters to move a lot during battles."

However, the game's reputation spread slowly, in part due to the fact that home versions were hard to come by following the game's 1999 release unless you were willing to fork out for a Neo-Geo cartridge. A Dreamcast version managed to ship just before SNK's bankruptcy, and the PS2 conversion didn't appear until 2005. Even then, the game wasn't made available in Europe until the game came to XBLA in 2009.

Having heard that a sequel to *Garou: Mark Of The Wolves* had been planned before SNK's 2001 bankruptcy, we had to ask Oda if it was indeed started, and what remained of the project if it had been. "Yes, that is true," he confirms – but as we get our hopes up, he lets us in on the unfortunate truth. "The data is almost gone. However, some of them are still in our office as PDF files," he explains, meaning that little other than concept documents survived.

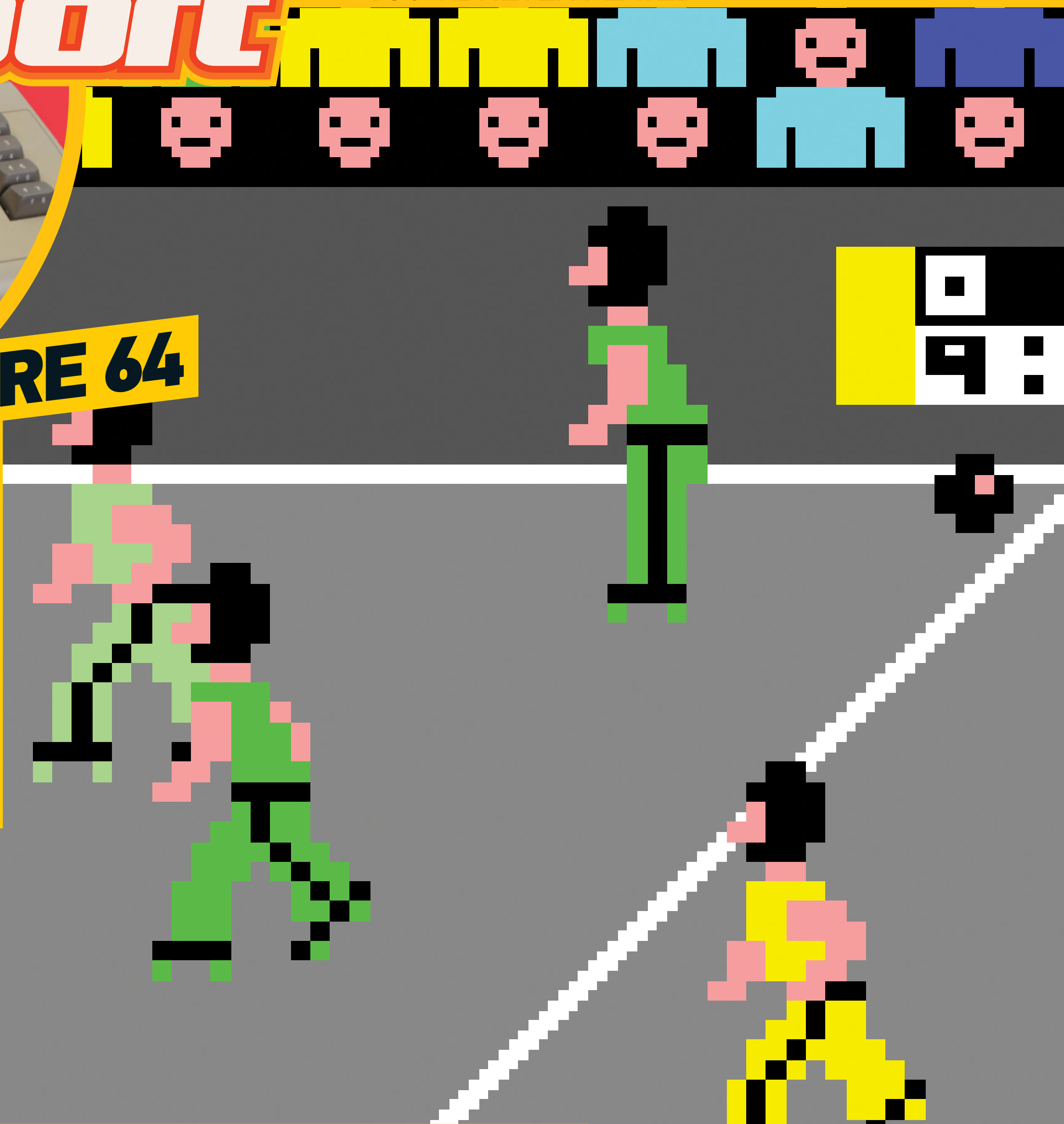
Since then, the *Fatal Fury* series has been dormant, but its history means that it continues to hold a following – as well as the continued use of *Fatal Fury* characters in the *King Of Fighters* series, *Fatal Fury* appears in spin-off products and the games are available on download services. Given the interest in the series, we had to ask Oda if there was any chance that it might return one day. "Yes," he answers. "If *The King Of Fighters XIV* succeeds, not only the *Fatal Fury* series but also all our IPs may revive one day." Time will tell if that comes to pass, but we're hopeful that it does – the wolves of the *Fatal Fury* fanbase hunger for more fighting. *



Minority Report

INTERESTING GAMES YOU'VE NEVER PLAYED





COMMODORE 64

Commodore's 8-bit micro may be immensely popular but that also means its got hundreds of obscure games still to cover. Darran Jones turns off his Amstrad and looks for some of the C64's more unusual games



» [Commodore 64] You can't see it here, but the scrolling is exceptionally smooth and has an almost hypnotic quality to it.



» [Commodore 64] An example of just what happens when somebody strays too close to another player.



» [Commodore 64] You can actually hit other players and send them tumbling to the ground. It's very, very satisfying.

ROCKET BALL

■ DEVELOPER: **IJK SOFTWARE** ■ YEAR: **1985**

■ *Rollerball* was a highly entertaining Seventies action film starring James Caan that has since gone on to earn cult status with cinema fans of the world. If there's any justice, *Rocket Ball*, which shares a similar premise to Norman Jewison's cult movie, will go on to receive similar praise.

Created by John Sinclair for IJK Software the similarities between his game and *Rollerball* are uncanny – there's even a James Caan lookalike on the front of the box for goodness sake. Worry not, though, for *Rocket Ball* is no cheap knockoff and while its rules aren't exactly the same as the futuristic (and very made-up) sports game, it's just as fast-paced, just as exciting to watch and just as brutal. Oh, and is it brutal.

Rocket Ball takes place on a circular skating rink, which is divided into eight areas. The aim is to simply pick up the metal ball that's thrown onto the rink and score by flinging it into your goal. While the goals initially start off in sections three and seven of the rink, they change to new locations whenever the ball leaves play (which happens quite often). It's important to note which goal is yours and where it's moved to, because it's all too easy to accidentally score an own goal if you're not paying enough attention.

Of course, before you can even attempt to throw the ball into an open goal you need to first pick it up, which is easier said than done. Obtaining the metal ball is a little unwieldy at first, as you effectively have to crouch in order to grab it. Approach it standing or from the wrong angle and you'll simply topple over it, throwing your player to the floor and losing precious time as he disappears off-screen.

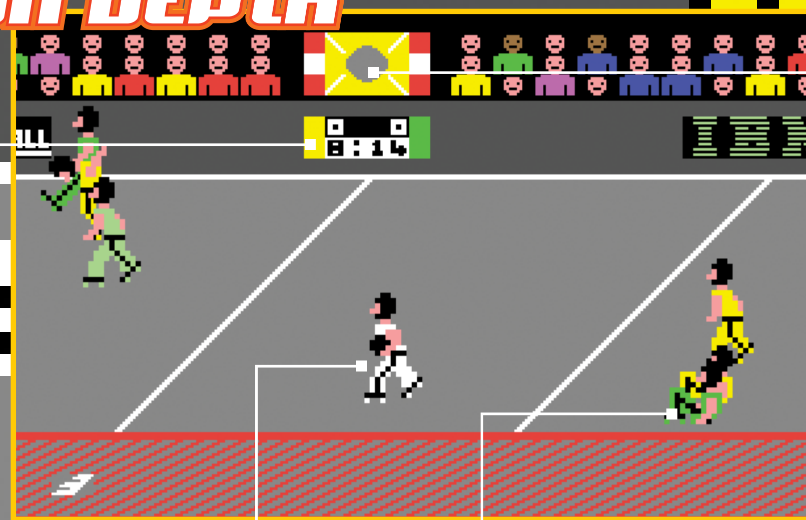
A new member of your team will soon appear — the AI is quite clever, typically selecting your closest player — giving you another chance of swiping the unprotected ball.

Once the ball is secured, you have to weave your way past the team's other players, including your own teammates, and reach your goal without falling. It's tricky, though, as your opponent will do everything it can to make you drop your precious cargo, including throwing punches or simply careening into you. The action throughout the game is fast and furious and never lets up, meaning it's a constant battle to score goals and keep yourself ahead of your opponent. The roustabout action is enhanced thanks to some excellent animation and super smooth scrolling that gives *Rocket Ball* a wonderful arcade-like feel.

While *Rocket Ball* is great fun when playing against the computer thanks to some challenging difficulty levels, it really comes into its own when played against a friend. While it's relatively easy to dominate an inexperienced player, there's a lovely back and fourth that appears between two players of equal skills and it's not unusual to see the ball itself being used as a weapon to ensure a better chance at an open goal.

Rocket Ball might not be as well-known as *Kick Off, Speedball* or other popular Commodore 64 sports games, but it's just as deserving of your attention.

IN DEPTH



NUMBERS GAME

■ You can't skate backwards, so you need to always know what zone you're faffing around in and when the next goal opportunity will present itself so you can get in there and stick it to the other team.

CHANGE OF CLOTHES

■ White clothes indicate you now have control of one of your yellow teammates. Fall off-screen and you will have to wait until a new character is selected.

TUMBLE TROUBLE

■ One of the biggest issues is learning to avoid the other players. Keep clear of large clumps as there's less chance of you stumbling if they are take a tumble.

TRUE AIM

■ The goal in *Rocket Ball* is deceptively small and requires a very careful aim in order to score. Ideally you want to be as close as possible, although shots from this distance are possible

IF YOU LIKE THIS TRY...



SPEEDBALL II: BRUTAL DELUXE
AMIGA

■ The best futuristic sports game ever made? You betcha. Amazing action, aesthetics and a clever scoring system made the Bitmap Brothers' sequel an essential purchase. The Amiga version is the best, but it still plays well on most 16-bit systems.



NBA JAM
ARCADE

■ Another fast-paced sports game, albeit one that's set in the present. In addition to featuring excellent visuals, Midways' game is also famous for its over-the-top dunks and excellent use of speech. It's also one of the earliest examples of microtransactions we can think of, as each quarter requires additional cash.



KILLERBALL
AMSTRAD

■ This futuristic sports game by Microïds (the company featured in our last issue) is essentially *Rocket Ball*, featuring similar mechanics but the ability to move backwards as well as forwards. While the Amstrad version features far better graphics, it's let down by an fluctuating frame-rate that really kills the action.

Minority Report

BIRD MOTHER

■ PUBLISHER: **CREATIVE SPARKS** ■ YEAR: **1984**

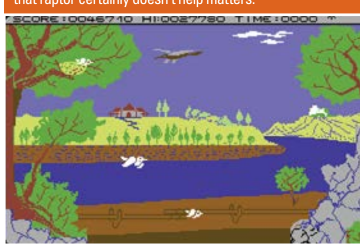
■ There have been a number of games based around birds, but *Bird Mother* is perhaps the most interesting we've encountered. The bad news is that it's an incredibly short game – in fact, it's possible to see everything *Bird Mother* has within ten minutes of starting play. The good news is that it's an absolute delight to play and while it is incredibly short, the addictive nature of the gameplay means you'll constantly find a reason to return to it.

Bird Mother is structured into three parts and each revolves around raising and nurturing a family of chicks. Initially you start off by building your nest. Various objects fall downwards and you must avoid the dangerous hazards while picking up small twigs and branches to build your nest. Once built, you'll lay three eggs and move onto the next phase: feeding. Once again you must fly around the screen but this time you're attempting to catch insects. Your chicks change colour to indicate they are growing and each needs several feeds before they're ready for the final stage of the game. Once your chicks are fully weaned it's time for them to leave the nest and fly around for themselves. You use the mother bird to nudge them around the screen, whilst ensuring they don't fall victim to the patrolling bird of prey.

The gameplay may be simple, but it's all held together by some tight controls and really impressive visuals, particularly on the animated man that hassles you on certain stages. *Bird Mother* may be a relatively odd concept for a game, but the execution is handled beautifully. The end result is a solid offering that requires lightning like reflexes and a hard heart should you fail to save the three chicks.



» [Commodore 64] Twigs fall relatively slowly meaning they're quite easy to catch.



» [Commodore 64] Protecting your chicks isn't easy and that raptor certainly doesn't help matters.



» [Commodore 64] Your chicks require a large amount of insects before they're ready to fly.



» [Commodore 64] If you get hit by that cane it's game over and who will feed your chicks then?

MORE GAMES TO PLAY



» TOY BIZARRE

■ DEVELOPER: **ACTIVISION**
■ YEAR: **1984**

■ This game from *NBA Jam*'s Mark Turmell is influenced by *Mario Bros.* but it retains its own style. Playing as Mervyn, you must destroy a number of balloons to move to the next round. Balloons eventually turn into toys, which can be stunned once you jump over them, but you also need to avoid Clockwork Hilda who is trying to create new balloons. It's hectic, but satisfying with exceptionally slick arcade-like visuals.



» GHETTOBLASTER

■ DEVELOPER: **VIRGIN GAMES**
■ YEAR: **1985**

■ Being a messenger for a record company isn't easy. Rockin Rodney must brave the streets in search of parties (indicated by flashing doors) so he can collect tapes and deliver them to Interdisc. Interdisc won't accept a tape until it knows the song is popular, though, so Rodney must load it into his ghettoblaster and blast people with music until they start dancing. It's odd, but addictive and features a selection of fun tunes, too.



» HOPELESS

■ DEVELOPER: **RADARSOFT**
■ YEAR: **1986**

■ Playing as Al 'Dutch Meat' Bluntz you must defeat Manic Munk by activating terminals that will turn off the 14 gates protecting him. Enemies are abundant, but can be stopped by your shield or laser, but these use fuel and energy. Fuel is also depleted by Al's jet pack, which is crucial for navigating certain areas of the game. As a result *Hopeless* becomes a satisfying juggling act where you need to constantly manage your resources.



» SEASIDE SPECIAL

■ DEVELOPER: **TASKSET**
■ YEAR: **1984**

■ Tony Gibson's fast-paced arcade game comes with a political bent, fuelled by the country's fear of nuclear war. The game starts off on Rotaway Beach where you must collect radioactive seaweed that washes up on the shore. Once they've been collected the action moves to Downing Street where you must fling seaweed at the aliens that reside there. It's not subtle, but the gameplay throughout is brilliant.

THE DETECTIVE GAME

■ DEVELOPER: **ARGUS PRESS SOFTWARE** ■ YEAR: **1986**

■ Judging by our attempts here, we'd never get a job with the police. Set in the Seventies you take control of an acclaimed member of Scotland Yard who must solve the murder of aristocrat Angus McFungus. There are ten suspects at the large mansion you're investigating and more gruesome murders occur as your investigation continues.

Although you can move around with the controller, actions in *The Detective* are icon-driven and allow a number useful options, including searching areas, examining objects and guessing who the murderer is (although you'll need evidence in order to make your arrest). You can also quiz suspects about McFungus, ask them their thoughts about the other residents and even discuss any objects you've found with them.

As robust as the interface is, one notable issue is that it takes a while to select the icon used to chat to characters. If you're not quick, they'll scoot away, requiring you to track them down again, which can get frustrating. The pace of *The Detective* is a little slow at first too, as it's not immediately obvious what you're supposed to do.

Despite this, *The Detective* is a solid game that gets surprisingly tense as the murders start stacking up and you start running out of suspects.



» [Commodore 64] If you don't click that last icon quick enough you'll lose your chance to chat to the major.



» [Commodore 64] There are a number of murders that take place in *The Detective*, including a death by piano of all things.



» [Commodore 64] Anyone could be the suspect so leave no stone unturned.

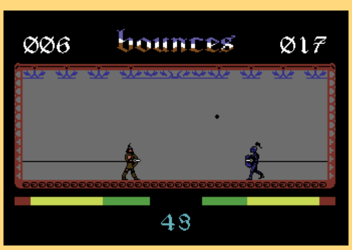
"As robust as the interface is, one issue is that it takes a while to select the icon used to chat to characters"

RETRO STINKER

» BIONIC GRANNY

■ DEVELOPER: **MASTERTRONIC** ■ YEAR: **1984**

■ We dedicated an entire two pages to this atrocity in issue 54 and our thoughts haven't changed. *Bionic Granny* is a festering turd of a game that we wouldn't wish on our worst enemy.



» BOUNCES

■ DEVELOPER: **DENTON DESIGNS**
■ YEAR: **1986**

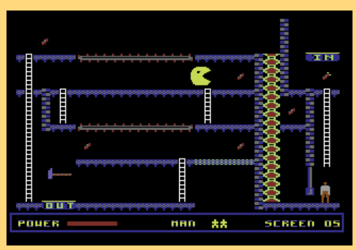
■ How many games feature knights attached to elastic bands that must bat balls around an arena? Not many we'd wager. Despite the oddness, *Bounces* works well, with your knight using his catcher to alter the ball's trajectory and score a goal. Points are also scored when your opponent hits the floor or back wall so there's plenty of ways to apply a smackdown. *Bounces* becomes absolutely essential with a second player.



» ANKH

■ DEVELOPER: **DATAMOST**
■ YEAR: **1984**

■ This intriguing game features puzzle and arcade elements. Stranded in a maze you must retrieve four musical triangles, eventually playing them in an ankh-shaped room. The triangles are well-protected, and you'll have to navigate tight spaces and activate switches in order to retrieve them. You get to shoot the odd thing too, which stops things getting stale. *Ankh* is unusual, but there's no denying it's an absorbing little game.



» MADNESS

■ DEVELOPER: **RAINBOW ARTS**
■ YEAR: **1986**

■ Complemented by a phenomenal arrangement from Chris Hülsbeck, *Madness* is a solid puzzle platformer that requires great timing and dexterity to complete. Each screen becomes a puzzle in itself, as you're required to light a number of torches before you can activate the exit and continue on. You can't dally however, as your energy bar depletes ensuring you must hustle around the playing area as quickly as possible.



» THE MOVIE MONSTER GAME

■ DEVELOPER: **EPYX**
■ YEAR: **1986**

■ In this curio from Epyx you play as one of six B-movie monsters. There are six cities to run amok in, including London, New York and Tokyo, along with five scenarios. Lunch sees you trying to eat as many people as possible; Escape requires you to flee the city; Berserk sends you on a point-scoring rampage; Search has you looking for a baby, while Destroy Landmark is fairly obvious.





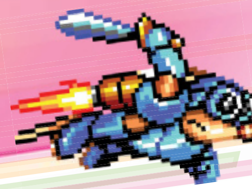
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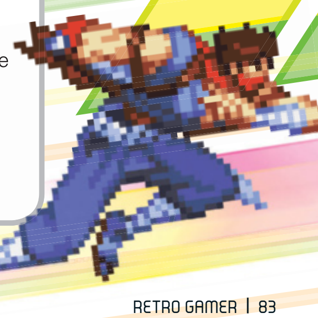




For some players, just completing a game isn't enough – it's all about pushing yourself (and the games) to the limits to reach the end as fast as possible. Luke Albigés chases down some stars of the speedrunning scene to learn more about this fascinating pursuit

Everybody plays videogames for different reasons. Some do it to relax, to escape from the crushing reality of everyday life. Others play to experience stories, characters and worlds in ways no other medium can offer. But for some, it's all about the competition. They want to be the very best – like no one ever was, if you will – and that can take many forms, whether it's crushing rivals in fighting games, setting crazy high scores and dominating leaderboards or screaming over the finish line faster than anyone else in a racing game. But for games that perhaps don't have any score attack mechanics or built-in ways of tracking and improving performance across successive plays, players would need to get a little creative.

While playing purely for self-improvement is something that many do genuinely enjoy, a competitive mindset thirsts for competition and before the rise of the internet, that wasn't something that was readily available. Magazines may print some choice scores or times to try and beat, or you might overhear the tale of a record that wants smashing in the school



CRACKING THE CODE

A handy glossary to many of the strange terms and abbreviations used in speedrunning

■ any% – While the 100 per cent category for runs is pretty self-explanatory, any% is basically the opposite. In these runs, speedrunners will typically do as little as possible in order to reach the end quickly, often involving significant skips and glitches.

■ Damage Boost – The act of intentionally taking damage to abuse post-hit invincibility or other properties caused by being hurt by an enemy or hazard. Often used when skipping past a threat is significantly quicker than dealing with it in the intended manner.

■ Frame-perfect – Used to refer to any input or in-game event that must be performed within a one-frame window (accurate to within 1/60 of a second in a game that runs at 60fps) in order to achieve the desired effect. Incredibly tough to perform consistently by hand.

■ OOB – Short for 'out of bounds', most often in reference to glitches that allow characters to leave the intended play area in order to reach later areas (or even places they were never meant to go) and skip large portions of the game in question.

■ Underflow – Refers to specific code exploits occasionally used to wrap numbers down from zero to their highest possible count, as seen in *Symphony Of The Night*'s gem duplication glitch and various *Pokémon* tricks. This can lead to other glitches.

■ RNG – Stands for 'random number generator/generation', but colloquially used in discussion of anything that isn't predetermined. Enemy placement and behaviour sometimes fall under this banner, especially with the order in which bosses will use different attacks.

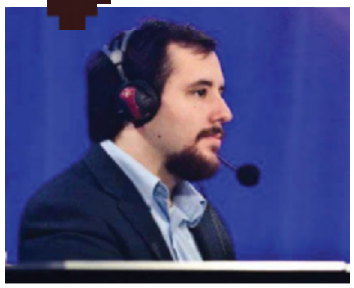
■ RTA – Or 'real-time attack', a term simply used to describe any single sitting, start-to-finish run of a game, typically without loads or resets. One of three broad categories of speedruns, along with the two slightly less common variants below.

■ Segments – A segmented run that allows for individual sections to be played and timed independently, the overall time being the sum of all segments. Segmented runs of longer/harder games are often quicker, as there's less room for error in the shorter parts, each of which can be improved individually.

■ TAS – The third core type of run is what is called 'tool-assisted', using emulators, scripts and other external assistance to pull off crazy feats that would otherwise be impossible, or at least not consistent enough to be practical for a normal human being with a game pad.

■ Warp – Though well known from games like Super *Mario Bros.*, other kinds of warps can take useful forms for speedrunners – save warps are used when fast travel would be quicker than backtracking, while death warps can be used to respawn in a more convenient location.





» Experts are always on hand at events to talk viewers through the shenanigans.



» [PC] If you thought Bethesda games were broken before, wait until you see what these guys can do…

▶ playground, but between the unconfirmed veracity of these targets and their infrequent nature, they seldom offered much true drive to improve. Arriving as the dawn of the internet, *Doom* exploded onto the scene just as players embraced a global forum for the sharing of great gaming feats, and id had the foresight to embrace this with a novel feature that allowed for 'demo' replay data of levels to be saved and shared. And players did just that in droves, with sizeable communities springing up around both *Doom* and later id's own 3D follow-up *Quake* as a result. One of today's largest online speedrun resources, speeddemosarchive.com, actually started out as one of many sites devoted to clips of crazy *Quake* tricks and completions, the website now hosts top runs of over 1,200 different games.

Speedrunning today is bigger than ever, thanks largely to the rise of streaming sites like Twitch that allow viewers to watch impressive feats of skill while interacting with and learning from the talented players, plus there's always that lottery ticket chance to be part of history as a new world record is set. Streaming is also used to allow millions to get in on events like Games Done Quick, charity speedrunning marathons with something on the menu for everyone. "Speedruns were always something I knew about, but didn't necessarily take interest in on a regular basis," says GDQ's Christopher Grant. "I'd occasionally watch a run for a game I liked (*Half-Life* comes to mind), but once AGDQ 2011 [Awesome Games Done Quick, an event run by GDQ] was started up, I started to watch and care a lot more about the scene. The more I saw of speedrunning the more I wanted to participate,



» [Xbox 360] It tends to be the classics that get most love, but newer games also see a bit of play.



and by the time AGDQ 2013 finished, I'd started learning *Oddworld: Stranger's Wrath*." Fast-forward to the present and the former speedrunner is now media relations manager for the biannual marathon – he's managing to find one of the few things that requires *more* commitment than learning every last inch of a game in order to speedrun it effectively.

"I'd say the majority of the staff has been involved in speedrunning or the community at some point, which brings in an expertise that really comes in handy for our very specific needs," he reveals. "Generally, by the time an event finishes, next year's event already has some early planning going on, and both attendees and staff take plenty of notes. Some aspects of the event take a considerable amount of time, like finding a good hotel for a GDQ [event]. Since the marathon has so many more attendees than previous years – over 1,000 at every event since AGDQ 2015 – everything takes a lot more time to sort through and plan, since the sheer volume of attendees has to be taken into account. The attendee-involved preparation, like games submissions and volunteering, take place in between the events, with enough time for runners to prepare game submissions, and hopefully for most attendees to know if they're going [to attend]."

Skilled runner Vulajin is involved in both the practical and the logistical sides of GDQ, performing speedruns himself as well as serving on the committee that decides what games and players should be featured in events. "For a GDQ, the process of picking games is extremely complex," Vulajin tells us. "Our overall goals are to produce a schedule that will raise money for our charity partner; that will entertain viewers, both those who are and are not already aware of speedrunning; and that will represent a cross-section of what the speedrunning community has to offer. We try to pick a wide array of games to attract a diverse audience. We also try to showcase games that people might not realise make for impressive or funny watches when played fast. Of course, there are a lot of speedrunners of popular videogame series like *Mario*, *Mega Man* and *Zelda*, so those [games] will always be pretty well represented as well."



» [PlayStation] *Castlevania* games, like *Metroid* games, are awesome for running as there are loads of possible sequence breaks.



» [PC] Even open world games like *GTA* see competition, although this is the domain of the more patient and experienced runner.

Surprisingly, despite this responsibility and his myriad videos on speedrun.com already, Vulajin hasn't been on the scene for all that long. "My first exposure to speedrunning was Awesome Games Done Quick 2013," he recounts. "Two runs in particular really sold it to me: Garrison running *Super Metroid* and Werster running *Pokémon Fire Red*. *Super Metroid* involves rapid, precise movements, and is challenging as hell, so I was amazed and immediately struck with the thought, 'I wish I could do this, but I could never actually play that well.' *Pokémon* is the opposite – it's slow-paced, methodical, and heavily rooted in intricate knowledge of numbers, game mechanics, and probabilities. I'm a professional programmer – numbers and planning are totally my thing, so this immediately appealed to me. After watching both runs, I knew this was a hobby I could get into."

Finding the right games is critical, as Vulajin knows only too well – the process of deciding on games to learn and speedrun is very different from that of deciding which to showcase during an event. "For myself, like most speedrunners, the most important thing is that I've played a game and loved it casually before I'll even consider speedrunning it. I also need to really enjoy looking at and listening to the game for potentially thousands of hours. These qualities are actually way more important to me than things ▶

"If we're not running ourselves, we're often in somebody else's chat, watching them and chatting there"

Ghoul02

RUNNER PROFILE



DANACRYSALIS

TWITCH.TV/DANACRYSALIS

GAMES: MONTY ON THE RUN, FORBIDDEN FOREST

■ On Getting Into Running: "Don't do it for the fame, and don't let a game's popularity influence your choice (much).§v You have to really enjoy what you're doing in order to put the time and effort into it, and running a game you don't like will just end in you being miserable every time you load it up, and that will carry through to your attitude on stream."



» [PC] *Doom* helped shape the modern speedrunning scene and it's still played today. In fact, new tricks are still being found.



» [SNES] Whether you want to watch or play, Mario games are the perfect place to start your speedrunning journey.



RUNNER PROFILE



VULAJIN TWITCH.TV/VULAJIN

GAMES: FEZ, BASTION, FABLE 2, ORI AND THE BLIND FOREST

■ On Getting Into Running: "You can speedrun. Everyone always watches something like a *Super Metroid* or a *Half-Life 2* or a *Dark Souls* speedrun or whatever, and they say, 'I am just not this good at games, I couldn't do this.' Spoiler: 'good at games' means that you practiced. It means you played a lot of games, or a lot of a specific game, and developed the skills to play it well, consistently. Speedrunning is the process of practicing and getting better. You can do that."

> **"For my first GDQ run, I put over 300 hours of practice into Bastion"**
> Vulajin



▶ like how long the speedrun is, or what specific tricks are involved."

There's no such thing as a right or wrong game for speedrunning – while games with scripted sequences and long or unskippable cutscenes may be far from ideal, they may still see some play if there are interesting gameplay tricks that make up for the downtime. Similarly, it isn't always the big games that get the most attention. Nintendo classics like the *Mario, Donkey Kong Country, Metroid* and *Zelda* games are among the most hotly contested, sure, but runs of obscure titles or on less popular platforms can also keep an audience suitably entertained. That's something that Daniel Fitzgerald (aka DanaCrysalis) is able to trade on, being one of the mere handful runners on the scene championing 8-bit computers, in his instance the Commodore 64. "I grew up with an NES as well, but I had a C64 long before then, and it carries a special place in my heart," he tells us. "No one else even considers running those games, and I get a decent amount of people coming in just hoping to see a game from their childhood that no one else seems to remember."



» [NES] Some runners take their feats even further, such as attempting to clear games like *Mike Tyson's Punch-Out!!* while blindfolded!

But as much as older games and systems may be interesting for viewers, they come with their own unique set of potential obstacles. A botched *Super Mario Bros.* run can be restarted in seconds, while tape-based games may require lengthy reloads. Events, too ,can present issues, as Daniel explains. "If anything happens to my systems, there won't be anyone around with a spare. But the best story is what actually occurred for my run of *Monty On The Run*. Because the game is PAL-only, I had to bring my PAL Commodore. Unfortunately, when I arrived at the event, we discovered that 99 per cent of the TVs would not display the image, and the other 1 per cent displayed it, but without colour. And that game has colour-coded transporters that cycle their colour, so I had to, over the week, practice to try to distinguish slightly different shades of grey for my run. It was extremely awkward!"

Being able to fall back on the support of others – and indeed that wider sense of community – is extremely important to the speedrunning scene. Although they're all in competition for the best times in their chosen games, runners will share tricks and tips with one another for the greater good of bringing those times ever lower. Watch any run of a big game and you're not just seeing one person's skill or strategy – you're seeing the collective efforts and discoveries of potentially hundreds of players over the space of years or even decades. "I've made so many close friends, even with people who have no games in common

PUSHING IT TO THE LIMIT

Here are a few of the craziest runs we've come across…



SUPER MARIO 64 (0 STAR)

6M 44S / (120 STAR) 1H 40M 44S

■ Both ends of the speedrunning spectrum here are impressive for very different reasons – Akira's world-leading 0 Star run is a near-flawless showcase for the myriad glitches and tricks that allow you to skip the majority of the game, while puncayshun's 100 per cent run (again the world's best, according to speedrun.com) is a masterclass in level-specific tricks and perfect execution that reaches the credits in less time than you spent falling off Tick Tock Clock back in the day.



POKÉMON GREEN (ANY%)

3M

■ Utilising an extreme skip glitch to effectively pull map code into where your Pokémon party should be and manipulate it from there, the runners have managed to reach the Hall Of Fame after just a single battle. While this glitch was fixed in the western release of *Pokémon*, a more complex technique (this time involving intentional game save corruption and heavy inventory manipulation) exists in all versions that can result in an in-game clear time of 0:00.



CATHERINE (BABEL 1P2C)

25M 43S

■ "What is '1P2C'?" you ask. Well, it's what makes this run so impressive – it stands for 'one player, two controllers'. Ghoul02 plays the co-op Babel mode of this punishing puzzler *on his own*, a controller in his hand and an arcade stick on his lap, using both at once to ascend the increasingly difficult towers in what is currently world record time. To put this particular speedrun in perspective, most players can't even *finish* this mode, and that's with double the assets that Ghoul02 has set the record with…

with me," confirms Ghoul02, runner and organiser of the recent Race To The Finish event. "Speedrunners also tend to enjoy watching other speedruns, so if we're not running ourselves, we're often in somebody else's chat, watching them and chatting there, so when we get a chance to meet up at live events like GDQs, we know each other and just have fun." Christopher agrees with Ghoul02: "I've seen a ton of excited handshakes and hugs as communities meet up for the first time at a GDQ, sometimes having known each other for years."

Whereas those original *Doom* and *Quake* demos would have, at best, a block of text describing the feats performed for those unclear on what they were actually watching, our modern age affords viewers many more ways to understand *why* a run is impressive. On a livestream, viewers can ask questions and runners can explain complex tricks, skips and glitches, plus this gets even better at larger events where you tend to find additional runners talking through the action – particularly useful for the toughest tricks where the runner needs total concentration. Outside of big events, we also get to peek over the fence into the training ground to see runners practice their games or attempt runs on stream, and even most archived runs have chat audio. Between all of that and the wikis, guides and other text-based explanations out there (as well as tutorials for specific tricks on YouTube), you never need to scratch your head while watching something apparently impressive again.

While some onlookers might see using glitches and bugs to speed through games as 'cheating', ▶



» [Arcade] Most runs are done on original hardware, but emulators aren't off limits.



» [Mega Drive] *Rocket Knight's* cute style and simple action make it a perfect game to learn to run.



» [PS4] Indie games like *Enter The Gungeon* often include modes for speedrunners.

EVENT PROFILE



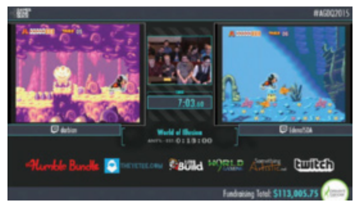
SUMMER GAMES DONE QUICK GAMESDONEQUICK.COM

DATE: 3-10 JULY

■ **Jet Set Radio (any%)**: 45m
Discover quick-tagging and witness seemingly impossible jumps in this incredible run of the Dreamcast classic.

■ **Donkey Kong 64 (any%):** 40m
Given that it has more tricks and glitches than pointless collectibles, expect to see some amazing and mind-blowing things…

■ **Tetris: The Grand Master Series Exhibition**
Five of the world's best high-speed block arrangers show off their superhuman organisational skills and reactions.



» [Mega Drive] Races between similarly skilled players can be incredibly close. One mistake can spell defeat.



» [N64] Ask any speedrunner how they feel about unskippable cutscenes. Go on, we dare you.

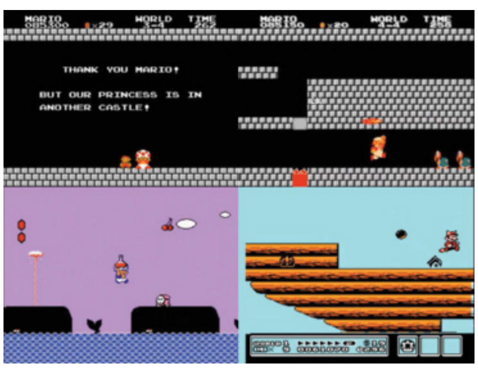




DUCK TALES (DIFFICULT, ANY%)

7M 10S

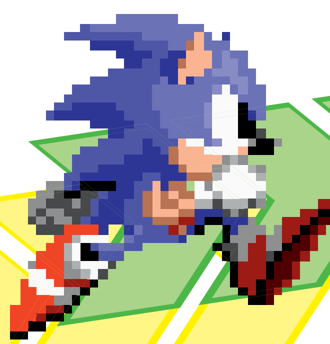
■ Somewhat tougher than you might expect a Disney tie-in to be, this NES classic is popular among speedsters as it's a quick and execution-heavy run that makes plenty of use of mechanical exploits – Scrooge takes no damage while pogoing so long as he's not moving horizontally, for instance. Like many other NES games, brevity and simplicity make this a great game to learn for aspiring runners, although the likes of EndySWE have a habit of making it look far easier than it actually is.



SUPER MARIO BROS. NES QUAD RUN (ANY%)

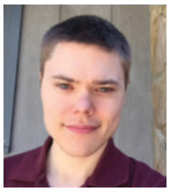
8M 49S

■ This mind-blowing tool-assisted speedrun sees player agwawaf play through *Super Mario Bros.*, *The Lost Levels*, *Super Mario Bros. 2* and *Super Mario Bros. 3* all at the same time *using a single set of inputs*. The amount of frame-by-frame work that must have gone into getting this run down is insane, as is the fact that after a staggered start, all four games are finished within a second of one another. Truly astounding.



MASTER OF MARIO

Meet darbian, the newly-crowned king of Super Mario Bros.



What first made you want to get into running games?
I got into speedrunning after watching AGDQ (Awesome Games Done Quick) in 2013. If I had to point to one specific run that grabbed my interest, it would have to be RunnerGuy2489's 100 per cent run of *Ocarina Of Time*. I was in awe at the things that were done in this game; things I never thought were possible. Prior to this event, I had seen speedruns on YouTube that consisted of just the gameplay. These videos, while interesting, confused me because I didn't understand what I was watching and didn't even know if the gameplay was legitimate. AGDQ allowed me to see this same gameplay, done live in person, on real hardware and with excellent commentary that explained everything I was seeing. I was glued to the stream that week and knew speedrunning was something I wanted to participate in.

Is *Super Mario Bros.* your favourite game to run?
Super Mario Bros. is certainly the game I've put the most time and effort into. I tend to focus on one or two games at a time and then move on. *Super Mario Bros.* has been my favourite game to speedrun in the last six months or so, but I don't have much of a desire to run it again for a while. My 'favourite' game to speedrun is usually the one that I am currently playing.

How much time, roughly, would you say you have put into *Super Mario Bros.* in total?
Ignoring time spent practicing, I have accumulated about 13,300 attempts at speedrunning the any% category of *Super Mario Bros.*. Assuming that each of these runs lasts on average about two minutes, this would come out to about 18 days. Adding in time spent practicing, I'd estimate it's around 20 days total. This is over the course of about 18 months.

How likely is it that your new speedrunning record will ever be beaten?
If there's one thing I learned since joining the speedrunning community, it's that no speedrun is unbeatable. There have been numerous records set that were labeled as 'perfect' or 'impossible to beat' – many of them were toppled. Sometimes a record is beaten due to new strategies being found, or a new strategy being added to the run that was previously thought to be too hard. Other times the record is simply beaten with better execution. To answer the question of how likely it is that my run will beaten, I'd give it about a 50 per cent chance of being beaten in 2016.





» [Mega Drive] 22 seconds? You should have finished the stage by now, slowcoach…

▶ it's often the most genuinely fascinating aspect of many speedruns (in any case, glitchless categories also exist for purists). It's always eye-opening to see crazy tricks pulled off in games you thought you knew inside out, even more so to see these often frame-perfect stunts performed live. Speedrunners reel off all kinds of crazy tricks when asked what their favourites are, from Accelerated Back Hopping in *Half-Life 2* (which, brilliantly, arose out of a 'fix' made by Valve to try and slow down bunny-hopping runners) to frame-specific jumps in *Ori And The Blind Forest* to various instances of hex code manipulation in games like *Pokémon Emerald* and *Final Fantasy IV*. "My favourite tricks are things that add speed and tech to platformers without completely breaking the game," reveals Ghoul02, a sentiment with which we completely agree – while seeing these kinds of monumental coding errors get exploited to reach the credits in seconds is interesting enough, a run that blends smaller exploits with displays of actual skill can be endlessly entertaining.



Developing a full working knowledge of a game's every feature and foible is not, as you may expect, something that comes without significant investment. "For my first GDQ run, I put over 300 hours of practice into *Bastion*," says Vulajin, while current *Super Mario Bros.* world record holder darbian puts his play time at around 450 hours and Ghoul02 estimates splitting a similar amount of time between *Catherine* and *Donkey Kong Country: Tropical Freeze*, among others. "Compared to a lot of other runners who have thousands of hours in their games, I play a lot more of them and have a fair bit less time in each," he explains. It's one thing to learn a game to the point where you can run it on stream and reset if things go south, but to reach a point where your run is consistent, marathon-friendly and you have back-up strategies for every trick you attempt? That's going to require even more of a concerted effort. "There's a huge amount of pressure to put on a good show, to not disappoint yourself, your friends, or your game's community," explains Vulajin. "But if you manage to let that go a little bit and just have fun with it, viewers will see that and you'll be really successful regardless of how good your execution is."

That, in a nutshell, is a perfect example of the difference between event runs and solo



» [N64] A decent runner will be seeing the credits before you've even found your first Jiggy. Okay, maybe not quite *that* fast…



» [SNES] Challenging games are usually the most impressive to see beaten quickly, requiring knowledge, consistency and skill.





» [PlayStation] Platform games such as *Abe's Oddysee* are always popular – simple mechanics make them easy to watch and follow.



» [N64] The *Zelda* series is always popular at events, whether the runner is doing it 'legit' or exploiting the myriad glitches and bugs.

ones. Watch any top-end run (a sub-five-minutes *Super Mario Bros.* run is perfect) and you'll see near-flawless execution, but that almost certainly didn't happen first time – chances are you'd be watching just one attempt from a catalogue of *thousands* of worse ones. When it comes to events and marathons, everyone involved knows it's unrealistic to expect similar results. An alien setting, different company and hardware, a live audience and constant distractions are just a few factors here, but mistakes happen – these people are only human, after all, even though some of the video evidence they put out may suggest otherwise – and nobody minds. One or two slips in a run filled with otherwise perfect execution and people aren't going to care about a missed skip that cost a few seconds here or an accidental death there… not when they're too busy seeing games they struggled to even complete get absolutely worked over by someone with both encyclopedic knowledge and exemplary skill. It comes back to that sense of community, too – the best event runs have a real sense of performance about them and an entertaining runner is able to turn even their failures into amusing changes of pace that really help humanise them and lets the audience better engage and relate.

While big new games tend to make for popular runs, there will always be a place for the classics in speedrunning – even much older games. "There may be less runs of the older stuff, but I do think they will remain a decent part of the community, if not simply because the design of 8-bit games lends itself to being run a lot more than modern games," reasons DanaCrysalis. "Simple, direct design and gameplay, no way to patch and change things, and they are still fun to play repeatedly when stripped to their cores, which is pretty important when you're doing them hundreds or thousands of times!" It's a great way to not only celebrate the games you loved and see classic games played to perfection, but also to experience things you never played in a setting that offers insight and impressive feats rather than the moronic screaming that accompanies so many Let's Play videos.

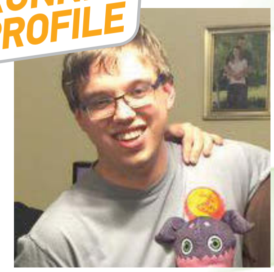
"I get a decent amount of people coming in just hoping to see a game from their childhood"
DanaCrysalis

It's infectious, too. Once you get the bug, you'll want to see more games torn apart, to see just how far skills, glitches and mechanics can be pushed, and then you'll want to do it yourself. And you can. Speedrunning isn't the domain of elite gamers, rather those with the passion and commitment to achieve mastery of their chosen games – anyone with the drive and commitment to do so can get involved, as Vulajin reassures us in closing. "It's fun and rewarding, even if the game can be beaten in ten minutes and you haven't cracked 30 yet," he smiles. "Pick up a game you love – a game that you could see yourself playing for thousands of hours –- and play it, start to finish, as fast as you can think to do. Then do it again, but faster. And again. Congratulations, you're a speedrunner. Welcome to the community." *



» [PlayStation] The early *Resident Evil* games can be smashed in under an hour – no time for a Jill sandwich!

RUNNER PROFILE



GHOUL02 TWITCH.TV/GHOUL02

GAMES: CATHERINE, SONIC ADVENTURE 2, YO-KAI WATCH, PERSONA 4

■ On Getting Into speedrunning: "Pick the game that sounds the most fun to run (it could be your favourite game or just a game that you really like playing), and watch a video of the speedrun. If you enjoy watching the video, then play the game and mess around a bit with some of what happens in the speedrun. If you still find it fun, keep going and eventually, you'll probably want to do a full game run."

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ED FRIES

Once dubbed 'The Father Of The Xbox' Ed Fries was almost synonymous with the brand for nearly 20 years. Kieren Hawken sat down with him to find out why he's still so passionate after all these years

The first thing we should probably tell you before you read this is that his name is nothing to do with chips and is in fact more like ice cream, it's pronounced 'freeze'. Now that's out the way we can get on with the main topic at hand and that is Ed's career. From his humble beginnings coding Atari 8-bit games in his bedroom to heading up Microsoft's booming games division, Ed has never lost his love for gaming. In fact, he still loves his career so much that he's now knocking out Atari 2600 homebrews on the side, just to see what he can achieve! Ed lives and breathes videogames and the impact he's made on the industry can't be underestimated. From Microsoft Word to *Halo*, Ed talks us through his illustrious career.



» [Atari 8-bit] A blatant *Frogger* clone, *The Princess And The Frog* (or *Froggie*) was Ed's very first published game.

Let's start at the beginning, how did you get started in the videogames industry?
As a kid I was always playing with electronics and calculators. The first dedicated game consoles and computers started to come out and, by high school, I had an Atari 800 and was spending a lot of time learning to program it, first in BASIC and then assembly language. I made a 4K assembly language clone of *Frogger* called *Froggie* and gave it to a few friends. Somehow it made its way to California, the people at Romox saw it and wanted to publish it. I still don't know how they found me, somehow they got the right Eddy Fries in the whole country! I don't know how because I wasn't old enough to be in the phone book, but somehow they found me!

What was your opinion of the Atari 800 hardware?
I received it as a present and I was disappointed because I had used Apple IIs at school and was hoping for one of those, but once I played around with the machine a bit I realised how much better it was.

How do you think the Atari 8-bit stacked up against its rivals, what were the pros and cons?
It was a great little machine, you could really tell it was built with games in mind. As a programmer you had hardware sprites, good sound and great graphics architecture, too. On the good side, as I said, the graphics and sound really were great for the time. On the bad side, the whole SIO bus thing was awkward and made for expensive peripherals of which there were not very many of them compared to the Apple II.

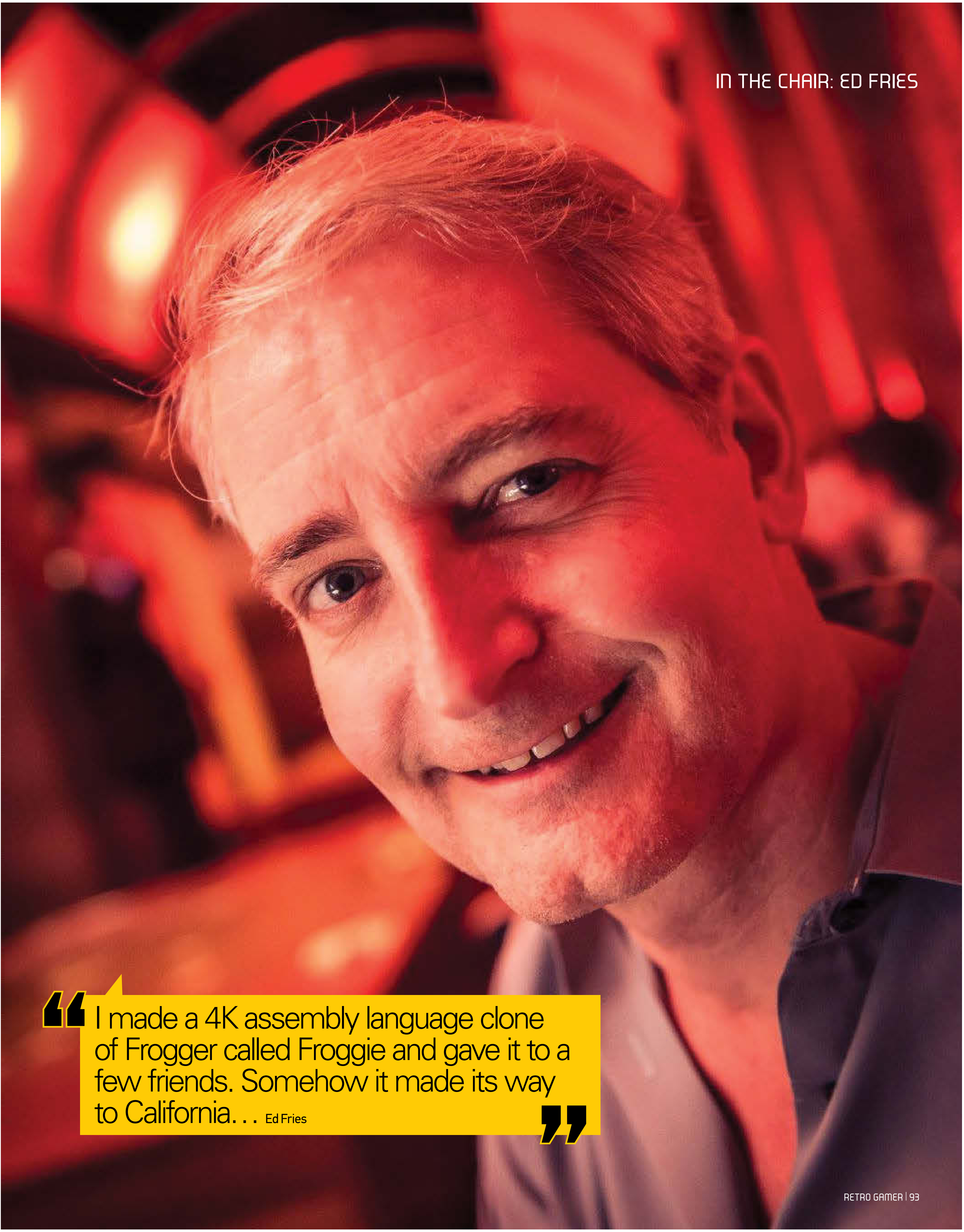
Out of the games you did at Romox which one were you most pleased with and why?
By my third game, *Sea Chase*, I understood the machine well so it's my favourite just because it's the one where I felt like I knew what I was doing!



Did you have any games that went unreleased by Romox when it went under?
I was working on a fourth game called *Nitro* when they stopped returning my calls. I was living in the middle of nowhere in New Mexico and going to college. It took me a while to figure out that the entire game industry had melted down. I also wrote a bunch of games in BASIC before I started tackling assembly language. I made a game that played the card game *Gin* called *Comp-U-Foe* that I would force my friends to play against. I made a *Robot Wars*-type game where players created robots and programmed them in a kind of assembly language and then battled them against each other. We had lots of fun with that one.

Do you have any memorable stories from your days at Romox making Atari games?
When I moved away to college I brought my Atari 800 on the air plane but had to ship out a small TV to use with it, so I didn't have that when I arrived. I had forgotten to bring an alarm and needed to be awake at a certain hour the next morning so I programmed the Atari to wake me up. It was a fun challenge to work 'blindfolded' without a screen and sure enough it started buzzing at the right time, just as I planned!

So tell us how the opportunity to work at Microsoft came about.
Without work in the game industry I had to look for a 'real job' so I applied for a summer internship at Microsoft in 1985 and was accepted. While I was there I worked on Office software for ten years. I was one of the first programmers on Excel for Windows. There were seven of us that did Excel, originally.



> I made a 4K assembly language clone of Frogger called Froggie and gave it to a few friends. Somehow it made its way to California… Ed Fries

In the chair with...



» [Atari 8-bit] *Sea Chase* by Romox is Ed's own personal favourite from his Atari 8-bit portfolio.



» *AntEater* was one of Ed's more prolific early games, featuring on Romox advertisement posters.

I worked on Excel for five years, then I got put in charge of Word, and I did Word for five years. But on the side I still played videogames.

How different was it to go from programming games to making productivity software? Did you miss making games instead?
I enjoy programming, so it was fun no matter what I was working on. Having a chance to be part of the Excel and Word teams as the company grew was a great opportunity and it left me in a great position.

Did you work elsewhere prior to joining Microsoft?
I worked for a small business software company called StarCom for a while in the summer of 1984. Its main product was a database program called Files & Folders.

So tell us about how the opportunity to makes games instead came to fruition?
So, after ten years, [Microsoft] was ready for me to run a business. And I said, 'Well, the business I want to run is the videogame business because that's what I'm passionate about.' They told me I was committing 'career suicide' and said, 'Why would you leave Office, one of the most important parts of the company, to go work on something nobody cares about?' Those are direct quotes from vice presidents, believe it or not! I was then offered the opportunity to take over the little game business that Microsoft had already built up. We had *Flight Simulator* and, well, not too much else, actually. So we just started putting out bigger and bigger games. We had teamed up with a company called Ensemble to make *Age Of Empires*, so that came out a few years later. And we just started to do acquisitions in order grow and grow the PC gaming business, and we did that very successfully. You know what the funniest and most frustrating part was? Working on stuff like Office was so central to the company that everyone had an opinion about what you should do. We would regularly be in fights with Bill Gates and other higher-ups about what Word should be, and a lot of times we didn't agree. So when I went to work on games it was a breath of fresh air as there wasn't a bunch of people above me trying to tell me what to do!

When did you first hear that Microsoft was going to enter the console market?
I had been running Microsoft's games business for some time when [the team] from the Windows DirectX team came in my office and pitched me on the initial idea for the Xbox. I agreed to help [out] by providing the first-party game line-up for the console.

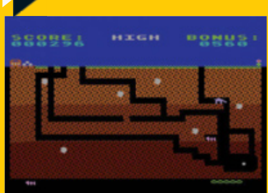
What was your own personal vision for the Xbox brand and how much of it did you get to implement?
My main concern was making sure we had a great set of games ready for when the machine was going to launch. One unique aspect of the Xbox was that it had a hard disk and I was a fan of that because I believed it could help us bring PC-style gaming to the console world.

The story goes that the Xbox was going to be a 'Dreamcast 2' and Microsoft approached Sega with this concept, can you expand on this any further?
There were two teams internally with competing visions for a Microsoft console. One was from the Windows CE team that had put a version of Windows on the Dreamcast. The other was our Xbox team which had a different vision. We won out and their project was cancelled and many of them joined our team and helped make Xbox better.

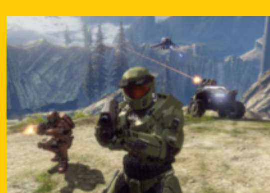
What was the developer reaction to the Xbox and how difficult was it to get people on board?
Most developers we talked to were excited about



FIVE TO PLAY
The essential games from the mind of Ed Fries



ANTEATER 1982
■ While Ed himself considers *Sea Quest* to be his best Atari 8-bit game, we have a real penchant for *AntEater*. At first this seems like nothing more than a *Dig Dug* clone, but a closer look reveals a very tactical game with some clever AI where you have steal eggs from a nest. The game was also ported to the VIC-20 and TI-99.



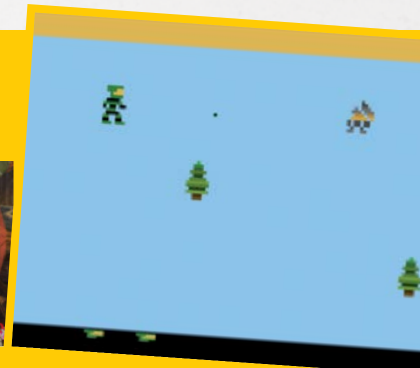
HALO 2001
■ What more needs to be said about *Halo*? It was the game that launched the Xbox as a serious contender in the console market and really made people sit up and take notice. The franchise still endures to this day and the original game (and its sequels) were recently re-released for the Xbox One, via a compilation.



CRIMSON SKIES: HIGH ROAD TO REVENGE 2003
■ A follow-up to the original PC game, this title added brand-new features including more open missions. *Crimson Skies* managed to blend the realistic *Flight Simulator* games with arcade-style action for an all-round satisfying and rewarding experience.



FABLE 2004
■ Probably more famous for Peter Molyneux's involvement as the head of Lionhead Studios than Ed's role as a producer, the *Fable* series was sadly killed off recently, but this game serves as a reminder of just how great this franchise was in the beginning. Ed also went on to produce the *Lost Chapters* version of the game for Xbox.



HALO 2600 2010
■ The Atari 2600 version of *Halo* is arguably the most prolific homebrew game ever released. Not just because it's an amazing demake of a hugely popular game, but also because Microsoft gave it its full blessing! *Halo 2600* is an incredible achievement, and a real testament of Ed's own programming skills.



the project. Our machine was powerful and easy to develop for, so they wanted to make games with us. About the only teams that were somewhat nervous to work with us were in Japan and that was because they were afraid that Sony might punish them in some way if they supported the Xbox.

How did the acquisitions of studios come about?
It was all simple, I was in charge of making all the games that came from Microsoft for Xbox. So I just looked at what was out there and acquired Bungie, then did *Halo*, brought Peter Molyneux in, acquired Rare and a lot of other projects, too. And I just continued to do that right up until 2004.

What do you put the success of the Xbox down to?
I just went out there to this green field and did what I thought was right. It would either work or it wouldn't and, as it turned out, it all worked pretty well!

In the end, what prompted you to leave Microsoft and do you wish you had stayed there to help launch the Xbox 360?
That's a long story but I guess it can be summed up as the environment became very political after we became successful with the first version of the Xbox, and I had no wish to be part of that.

You spent many years getting involved in start-up companies, what led you into this and what have you got out of it?
Most of my work these days is as either a board member or advisor to start-ups, mostly in games. It's a way for me to stay involved in what is happening in the game business without having a full-time job.

Tell us about your *World Of Warcraft* figurine business, what led you down this avenue?
I've always been a big MMO fan and wanted to do my own small start-up after I retired from Microsoft, so I decided to combine MMOs with 3D printing and created FigurePrints.

Why did you decide to return to your Atari roots and produce a homebrew game for the 2600 VCS?
I was inspired to make something after reading the book *Racing The Beam*. At first it was just a small tech demo but friends encouraged me to make a full-blown game and it just went from there.

How did you get involved in Ouya and are you disappointed with the way this all turned out?
I enjoyed being part of Ouya and was really impressed with everything the team was able to accomplish. Who would have thought you could fund a console company from Kickstarter?

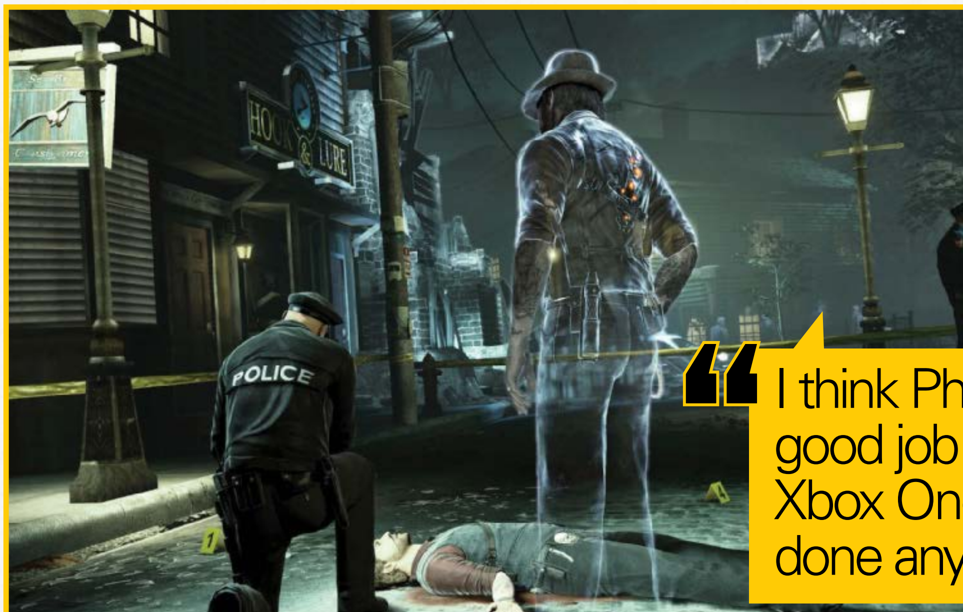
The Xbox One's announcement and launch wasn't great. What would you have done differently?
I think Phil Spencer has done a good job fixing the problems with Xbox One. I don't think I would have ▶

SELECTED TIMELINE

GAMES

- **Space Combat** [Atari 8-bit] 1982
- **Princess And The Frog** [Atari 8-bit] 1982
- **AntEater** [Atari 8-bit] 1983
- **Sea Chase** [Atari 8-bit] 1983
- **Age Of Empires** [PC] 1997
- **Pinball Arcade** [PC] 1998
- **Flight Simulator 2000** [PC] 1999
- **Motocross Madness 2** [PC] 2000
- **Halo** [Xbox/PC] 2001
- **Oddworld: Munch's Oddysee** [Xbox/PC] 2001
- **Quantum Redshift** [Xbox] 2002
- **Blinx the Time Sweeper** [Xbox] 2002
- **Project Gotham Racing 2** [Xbox] 2003
- **Crimson Skies: High Road To Revenge** [Xbox] 2003
- **Halo 2** [Xbox] 2004
- **Fable** [PC] 2004
- **Psychonauts** [Xbox/PC] 2005
- **Fable: The Lost Chapters** [Xbox/PC] 2005
- **Supreme Commander** [Xbox] 2007
- **Order Up!** [iOS/Android/3DS/Wii/PS3] 2008
- **Halo 2600** [Atari 2600] 2010
- **Dark Void** [PC/Xbox 360/PS3] 2010
- **Quantum Conundrum** [PC/Xbox 360/PS3] 2012
- **Soul Fjord** [Ouya] 2014
- **Murdered: Soul Suspect** [PC/Xbox 360/PS3/PS4/Xbox One] 2014
- **Rally-X** [Atari 2600] 2016





» [Xbox One] The most recent commercial game Ed was involved in was *Murdered: Soul Suspect*.

"I think Phil Spencer has done a good job fixing the problems with Xbox One. I don't think I'd have done anything differently" Ed Fries

In the chair with...

YOU ASK THE QUESTIONS

Ed answers your own burning questions

MAYHEM: How was programming *Halo* for the Atari 2600 compared to writing for the Atari 8-bits?

The Atari 2600 is a *lot* harder. Only 128 bytes of memory is a severe limitation, for example, and the graphics system is just crazy. It's hard to explain without getting technical but the programmer has to worry about how long each instruction takes just to be able to make the things appear on the correct place of the screen.

RICHL: Did you have any sleepless nights wondering if Xbox Live would ever be as popular as it has become?

Xbox Live wasn't my responsibility so I'm going to say no! But I was glad it was there to support multiplayer in the games we were trying to build.

HIRO: Do you think you could have 'hurt' the Playstation 2 behemoth more with the Xbox?

Probably not. The PlayStation 2 was a good machine with some great developers building for it. I'm proud of the market share we were able to get up against such a strong competitor.

PARANOID MARVIN: What was Microsoft and Bungie's reaction to *Halo 2600*?

They were both supportive, which is good because I was afraid they might sue me! Now I am having the same issues with *Rally-X*, I still need to clear up the rights with Namco and to fix a few more bugs. It's been a real challenge to squeeze that game into 4K.

done anything differently than what he's been doing.



What are you most proud of in your career and why?
I've been involved with lots of projects, big and small, and I have enjoyed being part of all of them. I like helping other people but I get the most satisfaction still from making things with my own hands. It's hard to pick just one, really.

How do you view the current videogames industry with its reliance on big-name franchises and the huge budgets involved in making them?
Well, I think the industry has gone through an incredible amount of change over the last ten years or so. There's been, on the high-end, the sort of relentless consolidation as budgets have gotten bigger and bigger, and fewer and fewer teams can do it, and the teams have gotten bigger and bigger. So triple-A is just insane. If you go to visit Bungie, you'll see 600 people in a giant converted movie theatre spending, whatever, $300 million to make a game – how do you even do that? How many teams in the world can do that? And those people are some of the very best in the world, and it's still really hard for them. And then there's this massive gap between them and the indie devs and nearly everybody who was in the middle is now gone. In fact, most of them are gone. They're being pushed to both extremes, and so the publishers can't find enough high-end developers to make games for them because they've all been pushed out. Then the developers say, 'I just want to make a $5-million game. I just want to make a $10-million game.' But that just isn't possible anymore in this world. Even if you could get a publisher convinced to do it, they would push you up to $50 million. Nintendo has tried, I think, a losing battle to fight against that for two decades of, 'We'll just keep our style simple. We'll keep our costs down. We'll show that what really matters is gameplay.' Which, of course, is true. But it may be what really matters for playing is gameplay, but for selling games it doesn't seem to be the case.

And then you have gamers saying, 'Why should I buy an Xbox One if I have a Xbox 360?' The graphics have to be better, right? And every time those graphics get better, everything gets way more expensive, but people don't always understand that. Trying to stay on top of the next-gen, whatever that next-gen is, has driven costs through the roof.

Where do you see the future of the videogames industry heading?
We seem to be charging into the VR world lately and computer AI is starting to get really good (see AlphaGo). How those two things will combine, who can say? I mean how much better can graphics actually get now? They can't! Which, to me, is an awesome thing. We've got 30 years of chasing graphics at the expense of creativity, at the expense of innovation and now we're finally to the end of that. We're finally onto the absurd end of that where budgets are unsupportable. The number of teams that

> "I think the industry has gone through an incredible amount of change over the last ten years or so" Ed Fries



can do it is unsupportable, and I'm cheering at the bonfire because what's going to come out of the fire is what's already happening, which is the whole indie movement of creativity and gameplay. We are back to being the most important thing, which is fantastic. So I spend way more of my time these days hanging out with indie developers who are doing cool things like *Don't Starve*, or the Spry Fox team is up the street from me, and I just see how people can now do it. When I started in the game business one guy could make a game, it's nice to see that coming back.

Speaking of indie games, are you planning to do any more retro homebrew projects yourself?
I have just produced a port of *Rally X* for the Atari 2600, because no one had done it basically! Lately I've been exploring the really early history of the arcade game business, I just acquired a board of the first ever colour videogame – *Gotcha* by Atari. You can see some of that at edfries.wordpress.com. My next project is likely to be something hardware-related rather than another game, I think.

Are you still involved with helping out indie game start-ups? Do you think this side of the business will continue to grow?
I have lots of friends now on the indie side of things and it's tough for them. Many of them are really struggling, but I guess that's true of any small business these days. So I help any way I can. A really big factor in making indie games these days, along with digital distribution and all this other stuff, is the rise of game engines. This is super-important because people can make games in *Unity* and other such technologies with very little technical experience and that opens us up in a huge way to people who've never been able to make games before. And that, I'm sure, is going to have an incredible, positive influence on the business because we're going to get content we never would have had before. But does that it make it hard? Absolutely. In the old days, there were only a few hundred people who knew how to do this stuff. Now anybody, anywhere in the world can do it. A person in Vietnam, a man in his apartment, can make a game with a little flapping bird that gets everything just right and suddenly he's a star.

I love that. I think that's *awesome*. But does that mean life is easy for indies? No way, no. Now they're competing in a global market against teams that maybe don't even have the technical expertise, but they do have a really cool idea and that can go a really long way.

The industry appears to be gravitating towards virtual reality at the moment – this year, at least – what are your opinions on that?
At the moment it seems like everyone wants to do Virtual Reality, it's the next big thing. In health, they're doing some incredible physiotherapy stuff, so people with missing limbs, people who've had strokes are using VR and to treat people in those cases, really fantastic stuff. Now people want to figure out how to bring this into the game space. But the system, and this one of the problems with VR: it's VR. It's AR. So it's got cameras on the front. It's got 3D-depth sensing cameras so you can see your hands. It's got a neural cap that reads your brain. You kind of need all those different pieces and, probably more, to actually do it right. As soon as you put on Crescent Bay [Oculus] or Valve's headset [Vive], for example, you really feel like you're there. And then the more real it is, the more you miss that you arms aren't there. Your hands aren't there. When something goes through your body, it feels really freaky. Because you really believe you're there, and then, how do you actually do that? And then as soon as you have your hands, what if I want to touch this? What if I want to feel it? So then you have to have haptic devices. So, okay. We have to have a 3D-depth sensing camera. We have to have haptics. We have to have a neural cap, headset and sound. And while those technologies sort of more or less exist, to bring them all together and to sell them to a consumer at a real price? That's why I go ten years, maybe. And people are like, 'Ten years!?' I dunno. Maybe at my age ten years doesn't seem that long, but I'm optimistic about will happen.



» [Atari 2600] Ed's latest game is a homebrew version of the classic Namco coin-op *Rally-X* for the Atari 2600.

So what about new people trying to enter videogames business, where do they start? Do you have any advice for them?
It's always been a hard business. And it's probably harder than ever. And either you're up for that or you're not. I feel like in the past, as we've gone through this time of real change, for every bad thing there's been a good thing. New funding sources have come in from China, I know a lot of people now who are funded by China, where there wouldn't have been another option. It's great. It's been great for the business, for friends who can make the game they've been dreaming to make. Then you have Kickstarter, and other types of crowdfunding. Another fantastic way to get yourself out there. Valve, Steam, Early Access etc.. Just getting a closer connection to your customers, being able to fund games directly to the customer, bypassing the publishing infrastructure? Great. These have all been super-healthy, fantastic developments for the budding bedroom coder.
So I think things get harder, but other things are much better. I suppose when weighing those two things, I'm optimistic and feel there are still lots of opportunities out there. *



» [Xbox] *Project Gotham Racing 2* was a worthy follow-up with some absolutely stunning visuals.



» Ed, with a fellow member of the Xbox team, Pete Parsons, at the UK launch event.

Fruit Machine Simulator

NOT AS GOOD AS THE REAL THING

» RETROREVIVAL



» AMSTRAD » CODEMASTERS » 1987

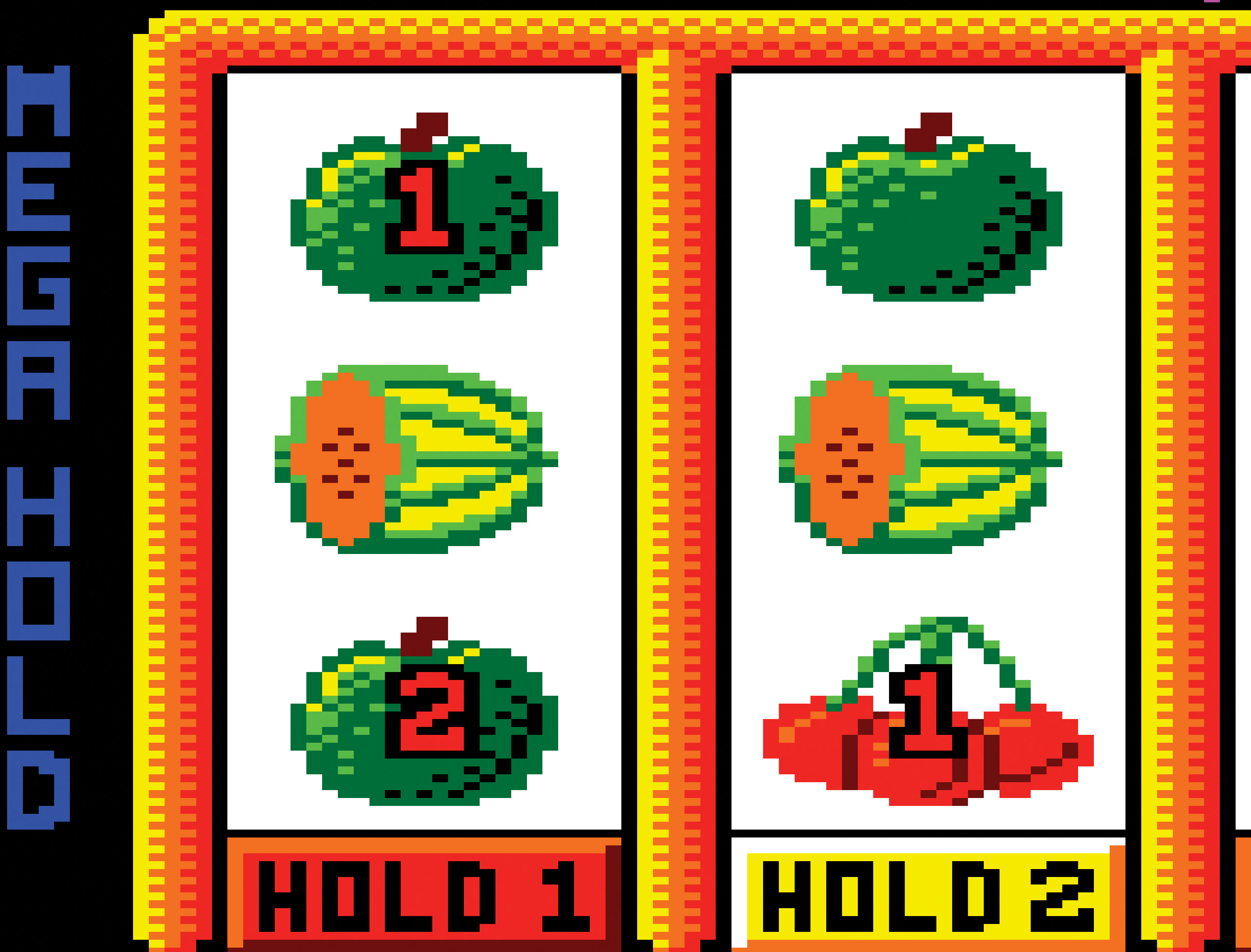
Growing up, money was hard to come by. As a result I loved budget games as they offered many hours of entertainment for little outlay. I was impressed by the solid output of Codemasters and amassed a sizable collection of its games.

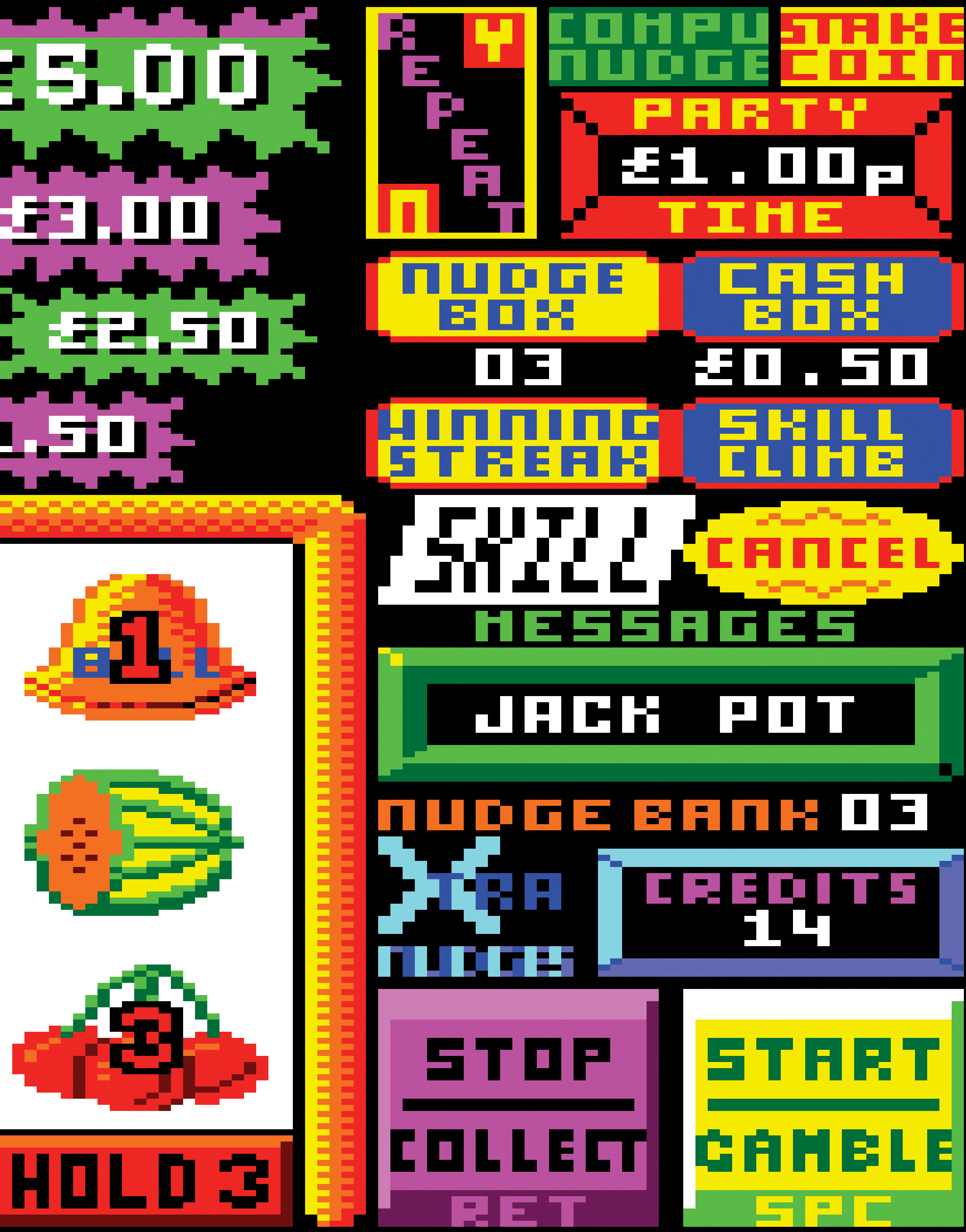
Although *Fruit Machine Simulator* started off life on the Spectrum, my own introduction was courtesy of the Amstrad version. Ported by Philip and Andrew Oliver, it featured the typical digitised speech that all Codemasters games had at the time, and far better visuals. Like the Spectrum version it's loaded with all sorts of sub-games that activate when you light up the word 'CASH BASH', and it becomes extremely easy to gamble away your initial starting money. Being a big fan of fruities I immediately handed over my £1.99 and took the game home. It all seemed too good to be true. At last here was a fruit machine game I could play whenever I liked without worrying about getting chased out of the arcade. Sadly, I soon realised that you should be careful what you wish for…

Gambling is never fun when you're not winning money and it's even less fun when you're awarded with imaginary cash. Once I hit the big £5 jackpot in *Fruit Machine Simulator* I realised that there was very little reason to carry on playing it. I immediately tried swapping the game with my mates, but they were far too savvy, laughing at my misfortune. I consoled myself with the fact that it was at least better than the Amsoft fruit machine game I had, but then remembered that I'd at least received that for free. This had been exchanged for 199 pennies and it was a costly mistake for a 14-year-old to make.

Every now and then I wistfully look at Amstrad CPC bundles on the forums and reconsider buying one again (although with a colour monitor this time around) and I think about rebuilding my original collection of budget Codemasters games. If it does ever happen, *Fruit Machine Simulator* is highly unlikely to make the list. *






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£1.00p
TIME
NUDGE BOX
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SKILL CLIMB
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MESSAGES
JACK POT
NUDGE BANK 03
XTRA NUDGES
CREDITS 14
STOP
COLLECT
RET
START
GAMBLE
SPC
HOLD 3



>> It's been a decade since Nintendo made a new Star Fox game. Will Star Fox Zero do justice to the earlier games, or are the new motion controls as terrible as everyone is making out? We also look at the Atari Vault and see how the latest version of Pang fares.


» [Wii U] The dungeons are still amazing and hold up exceptionally well after a decade.

Star Fox Zero

THERE'S LIFE IN THE OLD FOX YET

INFORMATION

- » **FEATURED SYSTEM:** WII U
- » **ALSO AVAILABLE ON:** N/A
- » **RELEASED:** OUT NOW
- » **PRICE:** £34.99
- » **PUBLISHER:** NINTENDO
- » **DEVELOPER:** NINTENDO, PLATINUMGAMES
- » **PLAYERS:** 1-2



You've got to admire the audacity of Nintendo and PlatinumGames. Instead of playing it safe and delivering an open-world action game like so many of their peers are doing at the moment, the two companies have instead created a very conventional on-rails shooter, with some very unconventional controls.

Before it was even released *Star Fox Zero* has been criticised for its motion controls and, now it's out, those opinions haven't changed. It's receiving what we feel is an unfair drubbing from all corners, not because it's trying to do something new, but because these sorts of controls aren't apparently needed in a *Star Fox* game. While we understand the gripes and can appreciate that the controls are certainly not going to be for everyone, once you do get used to *Zero*'s unique control system you'll soon wonder how you ever played on-rails shooters without it.

The GamePad's screen essentially acts as Fox's head, allowing him to look around his immediate cockpit surroundings to get a better sense of where enemies are coming from. You also have more precise control over your aiming reticule here too, and you're soon able to pull off amazing tricks of dexterity with very little effort. It is a steep learning curve, particularly on the other vehicles you can pilot, and we're sure that there will be many who simply won't attempt to master the controls.

The real beauty of *Zero* is just how intuitive it makes everything and how it subtly teaches you to get better at the game without you really realising it. Your initial run of Corneria will feature the odd enemy placement that's slightly out of reach, requiring some subtle pad work in order to shoot them. You'll most likely crash into something on your first attempt, cursing the ungainly setup and then Nintendo for even going down the route. It does start clicking, though, and by your second run you'll have a far better sense of the abilities of both the pad and your own reflexes. When that happens your score starts to climb. As with the original *Star Fox 64* (which *Zero* takes much of its influence from),

» [Wii U] This is the alternate route found on Corneria. You'll need the Walker in order to access it.



BRIEF HISTORY

» The original *Star Fox* (*Starwing* in Europe) was released on the SNES in 1993 and utilised the then revolutionary Super FX chip. A SNES sequel was made but never released, leaving the way clear for *Star Fox 64* on the N64. Several other games appeared, including *Star Fox Adventures* and *Star Fox: Assault* on the GameCube, but they never received as much love as the earlier games. The last original release was *Star Fox Command* for the DS in 2006.



✱ PICKS OF THE MONTH



DARRAN
Star Fox Zero
The controls are polarising but this, to me, is the obvious evolution of the *Star Fox* franchise and one that every fan should experience.



NICK
Namco Arcade Series
I can play *Dig Dug* (and some other classic games) in 1080p on my PS4 now. What more could a man want in life?





[Wii U] At first the cockpit view feels ungainly, rubbish even, but you soon discover just how essential it is on later runs.



it's heavily focused on scoring as many points as possible. The scores required to unlock medals will seem impossible at first glance, but as those weird controls start to make sense every planet's secrets will begin to fall.

That's right, as with the earlier *Star Fox* games there are secrets aplenty to uncover as you make your way through each stage and you'll continually be given little prompts that will make you want to constantly stray off the beaten track. Roughly half of the game's planets are unlocked on a first playthrough, giving you plenty of reasons to return once the credits finally roll. There's a decent co-op mode too, with one player handling the Arwing and the other on shooting duties. Sadly, there's no online play whatsoever, although a cool Arcade mode is unlocked upon completing the game.

Aside from the controls, *Star Fox Zero* is very much a traditional *Star Fox* game and it's clearly been modelled on the excellent N64 release. Much of the dialogue is near-identical (Fox is even the same voice actor from 19 years ago) the story feels very similar, while many of the actual levels have an air of familiarity about them. It's very similar to how J.J. Abrams treated *Star Wars: The Force Awakens* – it's clearly it's own game, but it borrows from the source material heavily so that there's plenty to keep fans happy.

Indeed, everything you want from a *Star Fox* game is here and here in abundance. There are secret locations to discover, waves of ferocious enemies to shoot down, thrilling set-pieces, a truly phenomenal and thematic score and plenty of dramatic battles that allow for lots of frantic dog fighting. While many sections of *Zero* are on-rails, a number of levels mimic the all-range sections of *Star Fox 64*. These are some of the best sections to go mad with the controls as you can typically lock-on to stuff, safe in the knowledge that you're unlikely to hit anything. Bosses are also a highlight in *Zero*, both aesthetically and for getting the most out of the enhanced control system. Huge in size, as well as scope, many of them need to be systematically blown apart before they can be defeated. There's something quite epic about flying through a boss as it falls apart around you and it's a sensation of accomplishment that *Zero* nails very well. The final boss fight is a little steep and will certainly test both your patience and your skills, but he's a small blip in an otherwise stunning set of battles.



Star Fox Zero might look a little low-fi compared to many other current gen games, and it's control system is already polarising players, but it remains one of the most refreshing shooters we've played for ages. By ignoring the current obsessions of modern videogames it delivers an experience that is distinctly oldschool but still feels refreshingly new. In short, we love it. ★

In a nutshell

The gameplay takes a while to click, but when it does it becomes tremendous fun. A pleasing old-school shooter that offers a surprising amount of replay value.

8 RetroGamer_Mag scored **8** for
Star Fox Zero
Follow our scores on JUST A SCORE



[Wii U] This cool looking SNES Arwing is an unlockable in the game. Alternatively, you can simply use the *Star Fox* Amiibo to unlock it.

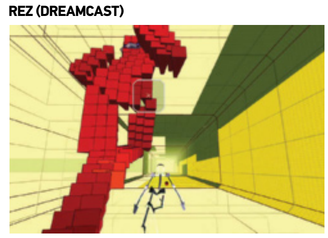
VEHICLE MASTERY

It's not just the Arwing you need to master…

Although you spend the majority of your time flying an Arwing, *Star Fox Zero* occasionally puts you into other vehicles. The Walker, last seen in the unreleased *Star Fox 2*, is perhaps the trickiest vehicle to get to grips with, being a bipedal chicken-like device that's mostly used in crowded areas. The Landmaster is a neat tank that deals out large amounts of devastation and can eventually turn into the Gravmaster, which can fly for as long as you have boost. The final ship is the Gyrowing, a slow lightly-armed drone that comes equipped with the ultra-cute Direct-i, a tiny tethered robot that can be deployed and used to hack into computers.

★WHY NOT TRY

▼ SOMETHING OLD
REZ (DREAMCAST)



▼ SOMETHING NEW
CRIMSON DRAGON (XBOX ONE)



RETROROUND-UP

>> Every month we look at all the classics and latest releases that are available to buy or download

Enter The Gungeon

» **System:** PS4 (tested), PC » **Cost:** £10.99 » **Buy it from:** Online

While procedurally-generated dungeons might be all the rage these days, Dodge Roll's bulging locker of pop culture-inspired firearms suggests that all those who have gone off in search of adventure before have been chronically underprepared to do so. You'll need a keen eye to spot all of its myriad references, mind. *Judge Dredd*, *Mario*, *Ghostbusters*, *Worms*, *James Bond*, *Doom*, *Dirty Harry*, *Metal Gear*… the list goes on and pretty much every iconic gun you care to mention is represented here, with the knowing nods and winks spilling over into passive abilities, enemy designs and dialogue as well. Such heavy reliance on the familiar could easily have come across as lazy or trite, but the studio does such a good job of blending the references in with more grounded gear and its own suitably out-there tools and enemies and premise that it's never allowed to be the case.

Surprises are seldom helpful in games like this, so the superb visual language evident in enemy design is a real blessing. Standard waddling bullets pop off the occasional shot at you, while a bandana or eyepatch hints at improved gear and abilities; shell-shaped enemies toss out cluster fire of varying colour-coded intensity; living grenades are a deadly up close as you'd expect. After a few hours, you'll learn to recognise what you're fighting by the bullet patterns coming in from off-screen alone. Later enemies and some bosses require more careful study but by that point, you've already learned the basics – it's just about adapting evasive and offensive techniques to overcome a new set of challenges at that point.

Although it can sometimes feel like a good run is dependent on luck, you'll find yourself surprised by how far experience and the starting pistol can carry you. Loading up on crazy weapons is more fun, though, and each run helps add new gear to the loot pool and invite helpful NPCs back to the hub to help with future runs and (eventually… hopefully) kill the past. A punishing, colourful and rewarding bullet hell roguelike.

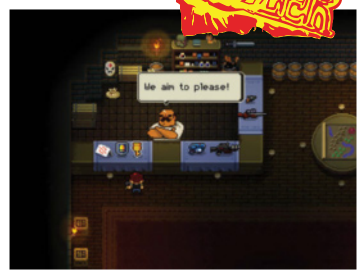
9 RetroGamer_Mag scored **9** for
Enter The Gungeon
Follow our scores on JUST A SCORE



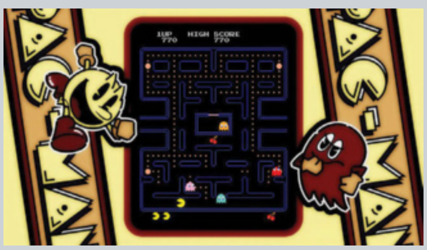
» [PS4] Unlocking new gear for the loot pool is vital to long-tem success.



» [PS4] The dodge roll is a lifesaver once you get the timing and spacing down.



» [PS4] Stores are randomised on each visit – make sure you keep the safety on while browsing, though.



Namco Arcade Game Series

» **System:** PS4 (version tested), Xbox One, PC
» **Buy it for:** £3.19 each » **Buy it from:** Online

It won't surprise you to learn that *Pac-Man* is quite a good videogame. Similarly, that the same applies to *Dig Dug*, *Galaga* and *Ms. Pac-Man* is likely even less surprising. The only real surprise here, in fact, is that each of these arcade ports comes in at just shy of 800MB on PS4, meaning the latest *Pac-Man* re-release is 51,000 times the size of the arcade original. Chances are you didn't buy a powerful new console with a view to playing 35-year-old arcade games but HDD space permitting, the option to do so – particularly when each is rich in options and has its own full Trophy list and Platinum – is welcome indeed.

8 RetroGamer_Mag scored **8** for
Namco Arcade Game Series
Follow our scores on JUST A SCORE



Pang Adventures

» **System:** PS4 (tested), PC, Xbox One
» **Buy it for:** £7.99 » **Buy it from:** Online

There's clearly no hard rule about not messing with the rules laid out by classic games – *Pac-Man Championship Edition* is a perfect example of a new iteration that tosses away the rulebook to great effect. *Pang Adventures*, sadly, doesn't enjoy such success. New gimmicks don't gel well, so while different bubble types (some are filled with lava that spills on bursting, while others are electrified and zap your wires) push more toward puzzle-style level layouts, the strict timer and combo system encourage the kind of frenzied blasting seen in older games. Panic mode is good fun, but Tour – with its needless boss battles – strays a little too far from the path for our liking.

6 RetroGamer_Mag scored **6** for
Pang Adventures
Follow our scores on JUST A SCORE



Atari Vault

» **System:** PC » **Buy it for:** £14.99
» **Buy it from:** Online

While the presentation of *Atari Vault* is tremendous, the content isn't on the same level. Although 18 arcade games are included they represent a fraction of the games Atari Inc released. The rest of the bulk consists of Atari 2600 games, which range from the brilliant to the banal. The emulation is of a high standard, but *Atari Vault* feels lacking, particularly on the online side of things, where finding games can be a lonely experience. It's nice to see several unreleased games included, and the price is good, but it's hard to get excited about the vast amount of games. It appears Atari was more concerned on hitting such a high number, rather than bolstering quality.

6 RetroGamer_Mag scored **6** for
Atari Vault
Follow our scores on JUST A SCORE

Gamers HOMEBREW

Brewing since 2005

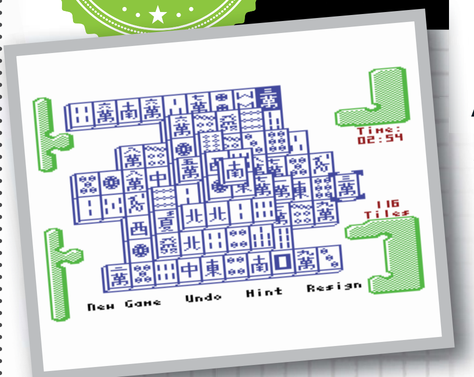


» [ZX Spectrum] Taking out the trash... well, recycling it.

» [C128] The tower of power.

Gaming NEWS

TOWERS, POTHOLES AND CHORES



» [VIC 20] Wearing down the tiles.

The Architects' *Mah Jongg* for the VIC-20 is a variation on the popular game where the objective is to match two tiles in order to remove both from play, although there are other rules which means that task is easier said than done! If you've got an expanded machine and fancy some tile-matching entertainment, Kikstart.eu/mah-vic is the place to be.

Staying with classic designs, how about a rendition of *Towers Of Hanoi* for CP/M-compatible machines? If that sounds like your cup of tea it offers a few gameplay options and comes in two flavours as well, a black-and-white portable version for a range of CP/M-compatible systems or a build aimed specifically at the C128 which is more colourful. Kikstart.eu/hanoi-cpm will pull up author Francesco Sblendorio's GitHub repository, which also has the source code, and you can look around his account for more games including a version of the *Eight Queen Puzzle* and a DOS rendition of *Towers Of Hanoi*.

We're also keeping an eye on the development of *Nox Archaist* for the Apple II, it's a new RPG which looks to be styled after classics such as *Ultima* and is being created by 6502 Workshop which, along with drawing from its own knowledge and love for the genre, is considering suggestions for features from the community as the project progresses. Head over to its website at Kikstart.eu/nox-a2 to see where things stand and perhaps even help with defining the final destination.

From RPG to action now, with *Pothole Percy* on the C64. Percy must repair potholes in a busy thoroughfare whilst avoiding the traffic and, if he finds the time, there are babies wanting their toy returned or pensioners in need of assistance. Kikstart.eu/pothole-c64 goes to the project page where there's a note about getting the game started via the disk image found on the 'Files' page.

To finish, there's the recently released *Husband Chores*, a Spectrum game about keeping the house clean by dealing with tasks such as unblocking the toilet or taking the rubbish out. Keeping everything balanced is tricky – the doors between levels open and close of their own accord and waiting around means more jobs will become urgent – but this is great as a diversion from, well, doing chores? Perhaps not, but its available now behind Kikstart.eu/chores-spec.

NEW GAMES NEEDED

If you have a homebrew project you would like to see featured then please contact us at: **retrogamer@imagine-publishing.co.uk**

» [PC] I ain't got no body.

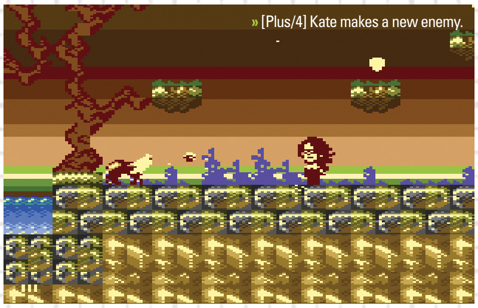


SOME ASSEMBLY REQUIRED

The delightfully bonkers scientist Frank N Stein has bold dreams of creating life by pinching body parts, stitching them together and kickstarting everything with a massive jolt of electricity. That dream could become a reality soon, although there are all manner of hindrances patrolling his laboratory to get in the way.

Based on Colin Stewart's Spectrum game – which he remixed as *Frank N Stein Re-booted* back in 2011 – and offering 50 hazard-filled screens of monster assembly, this is a task needing both dexterity and thought from the player to complete. You can collect the pieces of the game at Kikstart.eu/frank-n-win.

"Frank N Stein has bold dreams of creating life by pinching body parts"



» [Plus/4] Kate makes a new enemy.

HER MAJESTY'S RETURN

Plus/4 platformer *The Lands Of Zador* was released at the Revision demo scene party over the Easter holidays by developer Bauknecht, and it is the very impressive sequel to its already-good 2015 game *Majesty Of Sprites*. Our heroine, Kate, finds herself exploring more colourful, multi-directional scrolling worlds, this time completing missions for a friendly, if somewhat demanding, wizard who wants her to find a missing spellstone.

Head over to Kikstart.eu/zador-264 for the downloadable version and a physical release should be available on the Psytronik label soon at Psytronik.net.

·HOMEBREW HEROES·

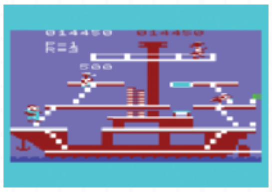
He may not be Popeye The Sailor Man or consume large quantities of spinach, but Adrian Fox recently converted the muscular seafarer's antics to the VIC-20 – we asked for permission to board for a chat



What was it about *Popeye* that initially grabbed you and said 'convert me'?
I've always liked platform games. I remember enviously playing *Popeye* on a friend's Atari 400 back in the day and wondering if the little VIC-20 would ever be able to handle such a game. *Popeye* has lots of animations and musical jingles – which I love – and also the VIC-20 didn't have a version, so I thought I would give it a go.

And roughly how long would you say that process actually took?
It took just over six months from start to finish, with about six weeks full-time effort towards the end.

Were there any highs or lows during the process of development?
There were no lows, really. Development unfolded quite smoothly as I reused a few things from my previous game, *Pooyan*. It was a little tricky to figure out the algorithm for Bluto's movements, and it's still not 100 per cent. In terms of things that went well, I managed to include all of



» [VIC 20] From the North to the South.

the animations and cutscenes from the arcade version. Coding these in assembler can be fiddly so I devised a 'script engine' to execute high-level commands for handling sprites and sequencing of animations.

Would you say it was easier or more difficult to convert a game, compared to writing a new game from scratch?
I didn't port any of the code from the arcade version so, in that sense, you could say I wrote it from scratch, but yes I suppose the gameplay was already defined and I had a benchmark to test against, so [it was] easier, I guess.

What kind of feedback have you had so far?
The feedback I've received has been good, but there is a limited audience out there for the VIC-20, so I don't expect too much acclaim. Several people have said that the game plays very similar to the arcade original, which is nice.

Do you have any projects in the pipeline that our readers would be interested in?
At the moment I don't have any plans, but you never know. I was thinking about this the other day and there aren't many games left from that arcade 'Golden Era' that are missing from the VIC's catalogue now. *BurgerTime* and *Tapper* are logical candidates but I don't get excited about those. One of my favourite games is *Gyrus* – I love the music – but I'm not so sure that the VIC-20 could handle that one. Food for thought...

THE BIG INTERVIEW · ADRIAN · FOX

» [VIC 20] It's really something magic, to lose it would be tragic.



Gaming
REVIEWS

DO YOU REMEMBER?

While the later games in Jonathan Cauldwell's *Egghead* series for the Spectrum are sprawling adventures in the style of *Jet Set Willy*, the original *Egghead* – released in 1989 on a *Crash* cover tape – is more like *Manic Miner* in gameplay terms.

On returning from his summer holiday Egghead finds his house has been invaded by aliens who have both made a complete mess of the place and are somewhat upset by his attempts to clean up after them. Each stage has a quota of items which must be gathered and, along with a time limit to keep the player on their toes, there are aliens positioned just where they'll be the most troublesome. There's also lots of tricky jumping to worry about.

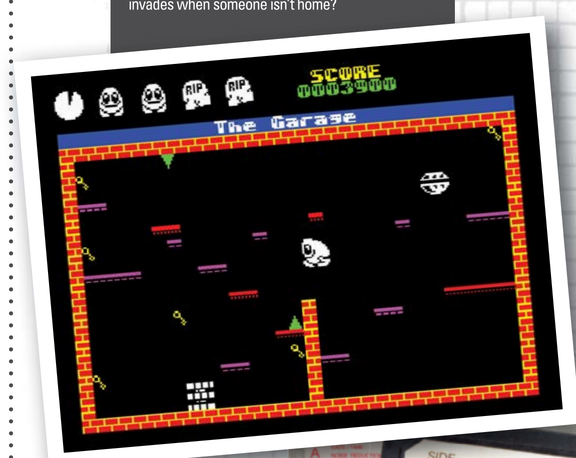
Head on over to Kikstart.eu/egghead-spec but brace yourselves for the egg-based puns!



» [ZX Spectrum] Having a cracking time and that's no yolk!



» [ZX Spectrum] What kind of evil creature invades when someone isn't home?





» [C64] Throne Group's site is huge, so Kim will often need to pop outside.

retro GAMER SIZZLER

HESSIAN

» **FORMAT:** COMMODORE 64 » **DEVELOPER:** COVERT BITOPS » **DOWNLOAD:** KIKSTART.EU/HESSIAN-C64 » **PRICE:** FREE

The Throne Group Science Complex is a huge, secretive organisation but that doesn't bother Kim much. She's positioned amongst the lower clearance security team who, at her own request, is on permanent night shifts, so work is usually uneventful… Until tonight when a group of unknown assailants burst into the building and unleash a hail of gunfire. Kim should, by all accounts, be dead, but instead wakes to find herself in a shipping container that's been converted into a makeshift operating theatre with her vague, but traumatic, memories of the attack and no clue as to what's going on.

Whoever operated on her hasn't merely saved Kim's life, because one thing she recalls from the process is somebody shouting, "Prepare the nanobot injection," and, on emerging from the shipping container, she finds one of the remaining staff who, just before he's killed, tells her that said nanobots both keep her alive and restore health but will need their power topping up regularly. Batteries can be found when exploring, along with medical kits to repair health – the nanobots can regenerate her, but doing so will drain their power – and what is a worryingly impressive arsenal of weapons for what is meant to be a scientific facility. Our heroine needs to figure out what's happened to the Throne Group, take on the insurgents pretty much single-handedly, and, of course, stay alive along the way.

Developer Lasse Öörni already has an impressive track record for this style of action with his *Metal Warrior* series – the first of which is now a rather venerable 17 years old, but still worth a play for those who haven't experienced it – and, while *Hessian* took a while to arrive, it doesn't disappoint. The controls will take a fair bit of acclimatisation because they're not the regular run-and-gun fare – jabbing fire won't use the weapons, for example – but it shouldn't take too long before most players are ably guiding Kim around, searching through cupboards for helpful items and retrieving parts from downed attackers.


» [C64] Fire to destroy all you've done, fire to end all you've become.


» [C64] Finally talking with someone who knows what's going on here!


» [C64] These two were just chilling in the Throne Group's staff canteen.

9 RetroGamer_Mag scored **9** for Hessian
Follow our scores on JUST A SCORE

retro GAMER SIZZLER

WING WARRIORS

» **FORMAT:** MSX » **PRICE:** FREE
» **DEVELOPER:** KITMAKER ENTERTAINMENT
» **DOWNLOAD:** KIKSTART.EU/WINGED-MSX

The Black Emperor dominates the land, ruling from the skies and striking down those who stand in his way with a merciless army of minions. He's defeated most of the opposition, but now there are the titular Wing Warriors to contend with. Kai, Gaia and Raiden all want a piece of the Emperor and aren't planning on letting his heavily-armed, trigger-happy goons stand in their way.

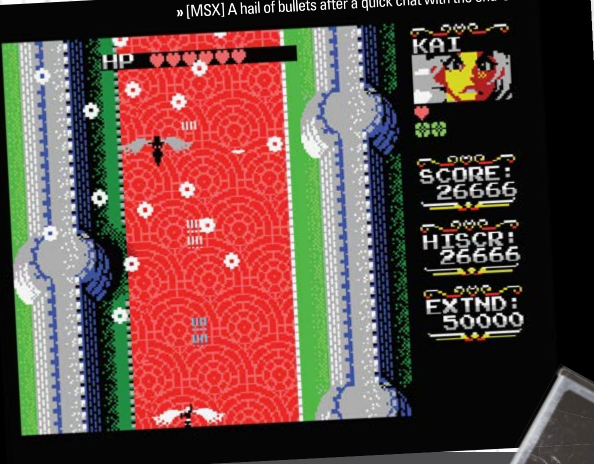
Bravery on the player's part is rewarded, since more damage will be dealt if the enemy is taking a kicking at close range, although that does mean getting up close and personal with nasties and disgorging an alarming amount of bullets. Each character has their own weaponry and learning the nastier attack patterns will prove to be as important as dexterity with the joystick. This is a very nicely presented and remarkably busy scrolling shoot-'em-up that's well worth the download.

9 RetroGamer_Mag scored **8** for
Wing Warriors
Follow our scores on JUST A SCORE

» [MSX] These must be barrage balloons: there's a barrage of bullets, after all!



» [MSX] A hail of bullets after a quick chat with the end-of-level boss.



NADRAL

» **FORMAT:** ZX SPECTRUM » **DEVELOPER:** TERMOJAD
» **DOWNLOAD:** KIKSTART.EU/NADRAL-SPEC » **PRICE:** FREE

Here we have a flip-screen shooter for the Spectrum which is based on the Atari 8-bit title of the same name from the Eighties. The player takes control of a helicopter-like craft that must be flown through a labyrinth, blasting anything that gets in its way to find what appears to be a female friend being held prisoner.

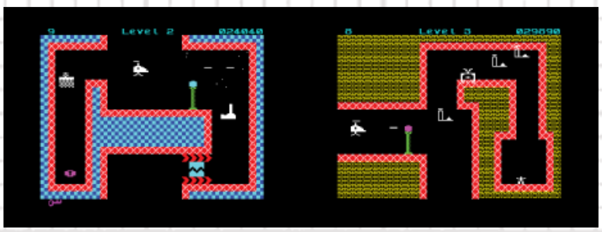
There are a lot of nasties to deal with as the map is scoured, so the item on each screen resembling a lamppost comes in helpful, since shooting the flashing light at the top of it will instantly destroy everything on the screen. There are also little men in need of rescuing and collecting them increases the lives counter.

The original game was simple and somewhat repetitive but it was still fast-paced and enjoyable, and this reworking for the Spectrum, created in Jonathan Cauldwell's Arcade Game Designer, is similarly limited but it is good fun to play.

7 RetroGamer_Mag scored **7** for
Nadral
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» [ZX Spectrum] Let's get out of here before one of those things kills Guy.





ROUNDUP

The Death Squad's *Invasive Species* is an action game with a twist; rather than shooting enemies the player has to instead squish them either into the ground or against other creatures patrolling the play area. Kikstart.eu/invasive-spec will take visitors to the World Of Spectrum thread where there's a download and some notes on how to play the game from its developer, Daveysludge.

We've also been looking at another MSXdev entry, this time called *BitLogic*. The titular character, Bit, lives in a virtual world and, although he's armed and there are hostile droids to blast, he doesn't really know what he needs to do or indeed why he's there for that matter! This platform-based adventure has been released but isn't quite finished yet, so what's there can be discovered behind Kikstart.eu/bitlogic-msx.

BATTLE CITY

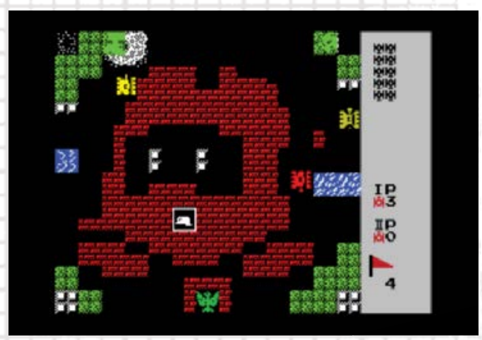
» **FORMAT:** ZX SPECTRUM » **DEVELOPER:** EPSILON » **DOWNLOAD:** KIKSTART.EU/BATTLE-CITY-SPEC » **PRICE:** FREE

The Battle City is literally a warzone and the good guys are in danger of being overrun by the baddies. Our heroes have a solitary base – represented by a phoenix which is safely walled-in at the start of a round – and either one or two tanks left to defend it depending on how many players there are.

But all is not lost because players can rely on their skill and reactions to ambush their assailants while avoiding or shooting incoming shells. Blasting an enemy that's flashing red will release a helpful power-up somewhere on the battlefield, evening the odds temporarily with shields, powerful grenades or a time-freezing device that stops all of the attackers in their tracks.

The Namco original on the NES from 1985 dishes up fun arcade-style action for one or two players, and this Spectrum conversion captures that spirit very well along with offering a level design feature.

8 RetroGamer_Mag scored **8** for
Battle City
Follow our scores on JUST A SCORE





» [ZX Spectrum] Here's what happens when landscapers use game sprites as their inspiration.

» [ZX Spectrum] The base looks safe, but the enemies can fire over water!

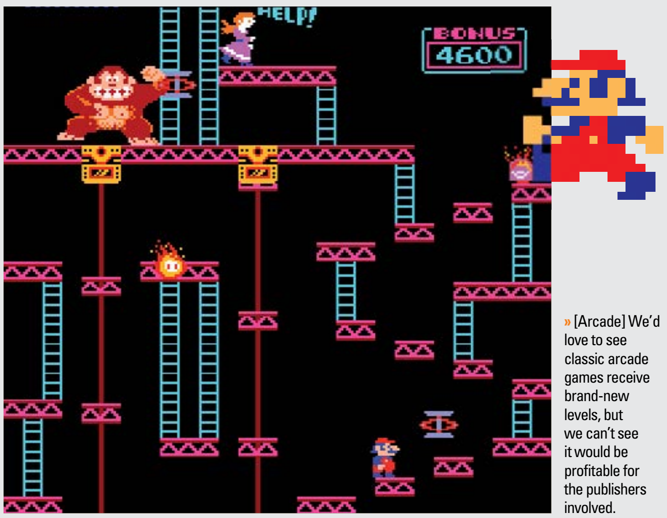
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STAR LETTER

CLASSIC GAMES, BUT BETTER



» [Arcade] We'd love to see classic arcade games receive brand-new levels, but we can't see it would be profitable for the publishers involved.

Dear **Retro Gamer**,
I would like to suggest something to you, and I feel that if this were ever to happen, then it could perhaps be a worldwide success. I thought that the old arcade classics of the Seventies, Eighties and Nineties could be, in a sense, 'extended upon' in their 'scope', but *not* their 'depth'. Here are some practical examples: Have you ever considered *Donkey Kong* with 256 levels and new obstacles? How about a *Pac-Man* variation in an *absolutely huge* maze, with 64 or 128 ghosts, and all sorts of power pellets which did incredible, but also simple things, to *Pac-Man*? Maybe a new *Space Invaders* game where the invaders could have the ability to go diagonally, and could also have shields, or maybe split in two?

The controls on these proposed 'extended' arcade games could be many but simple, rather than few, but complicated, like modern games, which would extend the scope, but *not* the depth of these awesome retro games.

Pheonix is another great example. I mean, why not have 65,536 levels of *Pheonix*, with all manner of extra space ships, and alien crafts?

Just some my thoughts for you to think about!

Mr. Sarn Richard Ursell

Thanks for sharing your thoughts with us. We do like the idea of extending the lives of classic games by adding new levels and mechanics and you'll be delighted to hear that some variations do indeed exist. Games like *Space Invaders Extreme* feature shields and aliens that split into two, while the *NES Remix* games are known for taking existing games and adapting the core gameplay in new and exciting ways. We're not sure if these classic games need different controls, however. What we do know though is that we enjoyed your ideas and will be rewarding you with your very own eMag.



» [Wii U] The new *Star Fox* game Platinum has made does benefit well from motion controls and the Wii U GamePad.

MOTION WOES

Dear **Retro Gamer**,
Why do developers insist on ruining great franchises? Take the new *Star Fox* game that is coming out. Now I've not played it, but it should have been obvious to Nintendo that shoehorning motion controls into a third-person shooter was never going to work. The game looks hideously ugly (no doubt due to having to also run on the GamePad's screen) and it appears to have very little in common with earlier games in the series. Surely developers should just make great games that do their hallowed franchises justice and not rely on gimmicks?

My fear with *Star Fox Zero* is that it's going to get universally slammed for having rubbish controls, which will cause Nintendo to never take a risk with the series again. I hope you agree that motion controls of any sort have absolutely no place in Nintendo's hallowed franchise.

Martin Stoke

We understand your concern Martin, but there's no need to worry. The controls certainly aren't perfect in *Star Fox Zero*, but they do work and certainly give you a new way of experiencing the series, which is always good. It also shares lots of parallels with *Star Fox 64* and there's a lot of fan service too. In fact, why not just read our review on page 100?

ARCADE HEAVEN

Dear **Retro Gamer**,
Here's a quick line to say keep up the great work. I've been with you since the early days of about issue 20 onwards and I always look forward to my monthly retro fix. This however leads to my small moan! I was incredibly surprised by your response to the star letter in issue 153 about the Bury arcade club. If the list of available (and I assume working) games on their website is genuine, I've never seen such an impressive collection of cabs under one roof in the UK. I will be heading there from Essex without any hesitation and I would have thought you guys would have been chomping at the bit to get up there and check it out regardless of distance?

A Ricks

Do not worry A Ricks, we certainly have plans for a feature on Arcade Club in a future issue of the magazine. Watch this proverbial space as they say.

A CALL TO DUTY

Dear **Retro Gamer**,
Please, please, *please* could you do an in-depth feature on the *Call Of Duty* franchise? The series is now 13



» [Arcade] The lack of a *Strider* cabinet upset Darran, but that won't stop us from covering Arcade Club.

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years old and there are lots of great games to choose from. I've been playing them since the beginning and if you look at the early games they really do show their age now, which makes them perfect fodder for the magazine. If you want to keep it old school you could simply stick to the earlier World War II games, but I feel there's enough relevant content to justify an in-depth look at my favourite gaming franchise.

James Turner

While we would agree that many of the older *Call Of Duty* games certainly don't feel that modern to play, it's probably too early to run a full history piece on the entire franchise. That's not to say we wouldn't consider something smaller if there was an interesting angle to discuss.

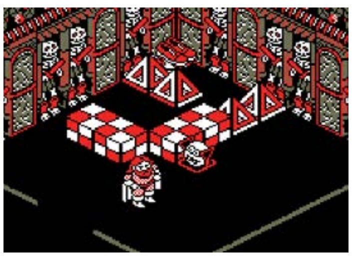
MEMORY BOOST

Dear **Retro Gamer**,

Can you jog my memory for me? I used to play a game on my friend's Amstrad in the Eighties, but I have no idea what it was called. I remember that it was an isometric adventure and looked very much like *Head Over Heels*, I also think it might have been a budget release. I also remember there was a dragon on the title screen but that's pretty much it. Any help you could offer me would be greatly appreciated, as I'd love to see if it's as good as I remember it to be.

Christopher Blake

You're in luck, Christopher, Darran used to own the game in question. It's *Super Hero* by Codemasters and it was released on various systems in 1988. If the graphics look familiar, it's because they were by Bernie Drummond, who also made the bizarre creations in *Head Over Heels*.



» [Amstrad] It's not a patch on *Head Over Heels*, but *Super Hero* does look nice.



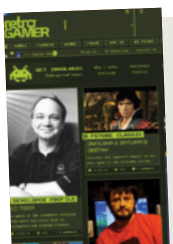
» [Amstrad] Here's the title screen that Christopher remembered.

DISCUSSED THIS MONTH

The 64

This month we've been keeping an eye on a new crowdfunding campaign that's asking for $150,000 to recreate the Commodore 64. The addition of a keyboard instantly makes a lot of sense, but it's still early days (although it's looking like it will hit its target).



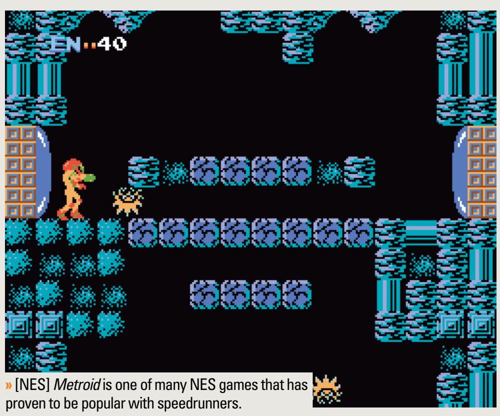


From the forum

» www.retrogamer.net/forum

Every month, Retro Gamer asks a question on the forum and prints the best replies. This month we wanted to know…

What are your thoughts on speedrunning?



» [NES] *Metroid* is one of many NES games that has proven to be popular with speedrunners.

Bluce_Ree
You have to respect the level of skill to pull off a decent speedrun but it looks like the least fun thing to practice for.

the_hawk
I wouldn't have the skills to try it, but hasn't videogames always been about the challenge and getting the best score or best time or whatever, so speedrunning seems a logical thing to attempt to compete at.

ArchaicKoala
I enjoy watching the non-glitch speedruns of games that I grew up with. I recently watched a complete near-flawless playthrough of *Kid Chameleon* and was just blown away by how effortless it seemed! I love the game but never legitimately finished it, it's just too bloomin hard!

ncf1
I think speedrunning is despicable, and disrespectful to the game-makers who undoubtedly would like players to enjoy their creation to the fullest.

Antiriad2097
I remember speedrunning Ultimate's *Underwurlde* before speedrunning existed. We found one of the exits was quite near the start and somehow it became a challenge among a small circle of my school friends to race there and compare times. Fighting against the odd bouncy controls was half the battle.

Mancman
I can totally admire the effort people put into these speedruns but I have neither the time nor energy needed for something that is so competitive.

joefish
I'm not really sold on speedrunning but I have found it fun for a few old games that I am particularly familiar with. That is just for my personal amusement, though - I'm not competing with anyone else. Having gone back to those games lately, I have been able to complete *Atic Atac* and have managed to loop *Manic Miner* on the Spectrum.

Retro GAMER

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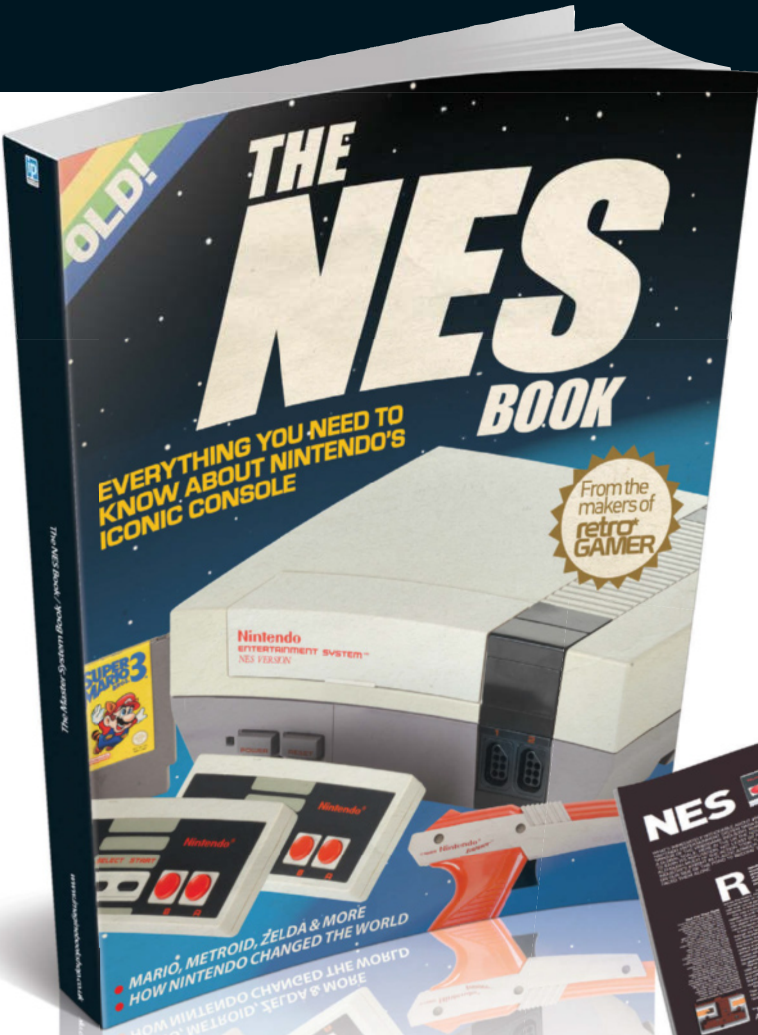
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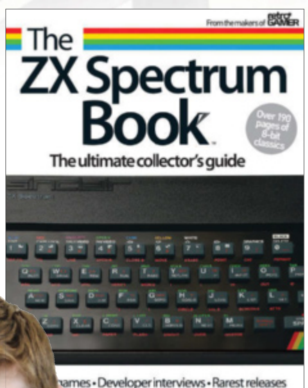
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As Sonic The hedgehog turns 25 we look at the many, many anthropomorphic videogame stars he influenced and how they compared next to Sega's blue blur

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ENDGAME



TARGET: RENEGADE

» It might boast the same fantastic Bob Wakelin cover illustration, but Target: Renegade on the NES isn't the same game as the 8-bit home computer versions, and it's not nearly as good as them, either. So we're going to graciously save you from a double dose of pure agony here. Firstly, you'll be spared from trying to finish this rather dodgy beat-'em-up yourself, and secondly – well, cast your eyes down a few centimetres to see for yourself…



01

» This chap, who seems rather insistent on your status as a mere child, is congratulating you for beating up the ironically named Mr. Big. Better yet, you've got your brother back! You'd better press the button for a heartfelt reunion…



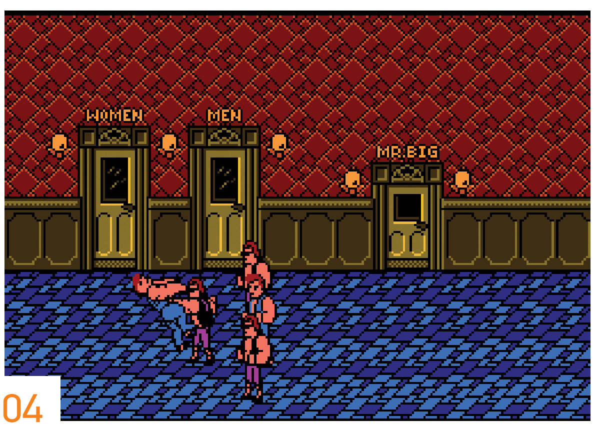
02

» It's your brother – evidently, you are identical twins. In fact, you seem to look a lot like another set of beat-'em-up brothers. What are Billy and Jimmy doing these days anyway? We should go and ask Arc System Works, really.



03

» Oh, what's all this? More thugs? Well, no matter – you've just kicked your way through dozens of them, and now you've got your brother by your side so it's two against three. Those are the best odds you've seen all week.



04

» Wait, what? What?! The enemies have surrounded your brother and knocked you out cold. What's more, he's not even trying to help. Is this for real? Is this the beloved sibling you fought an entire street gang for? For crying out loud, all that effort and he's a massive jerk.



05

» And now your brother wanders off with his supposed kidnappers, with no sign of restraint or coercion. As you regain consciousness, you vow that the next time you see your brother you're going to ensure that the tooth fairy has to dig through his excrement to collect her dental debt.


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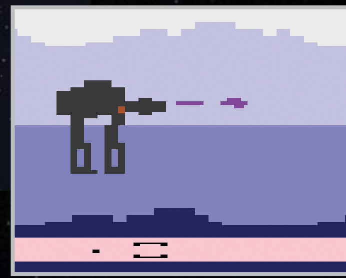
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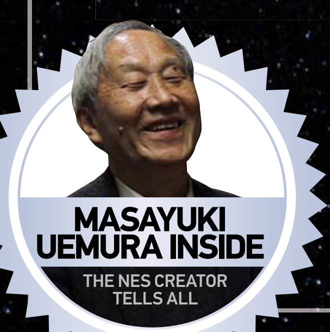
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